Town of Arlington, MA
Redevelopment Board

Agenda & Meeting Notice
September 8, 2025

Per Board Rules and Regulations, public comments will be accepted during the public comment periods designated on the agenda. Written comments may be provided by email to cricker@town.arlington.ma.us by Monday, September 8, 2025, at 3:00 pm. The Board requests that correspondence that includes visual information should be provided by Monday, September 8, 2025, at 10:00 am. Please note that all times are estimates; individual agenda items may occur earlier or later than the time noted.

The Arlington Redevelopment Board will meet Monday, September 8, 2025 at 7:30 PM in the **Arlington Community Center, Main Hall, 27 Maple Street, Arlington, MA 02476**

1. Review Meeting Minutes

7:30 pm The Board will review and vote to approve meeting minutes from August 11, 2025.

2. Public Hearing: Docket #3857, 225 Broadway (continued from July 14, 2025)

7:35 pm The Board will vote to continue the hearing to October 20, 2025.

3. Public Hearing: Docket #3866, 18 Grafton Street

7:40 pm Notice is herewith given that an application has been filed on August 14, 2025, by Albert Azatyants, SA Development Corp, 200F Main St, Box 352, Stoneham, MA 02180, to open Docket #3866 in accordance with the provisions of the Town of Arlington Zoning Bylaw Sections 5.9.3, Site Plan Review. The applicant proposes to demolish an existing single-family dwelling and construct a four-unit residential building on the property located at 18 Grafton Street, Arlington, MA, in the R2 Residential District and Neighborhood Multi-Family Housing Overlay District.

- DPCD staff will be provided 5 minutes for an overview of their Public Hearing Memorandum.
- Applicant will be provided 10 minutes for an introductory presentation.
- Members of the public will be provided time to comment.
- Board members will discuss Docket and may vote.

4. Open Forum

8:25 pm Except in unusual circumstances, any matter presented for consideration of the Board shall neither be acted upon, nor a decision made, the night of the presentation. There is a three-minute time limit to present a concern or request.

5. New Business

8:35 pm

6. Adjourn

8:45 pm (Estimated)

7. Correspondence

225 Broadway:

- J. Cullinane, 7/17/25
- D. Seltzer, 7/17/25

1500 Mass Ave:

- J. Cullinane, 9/2/25

Town of Arlington, Massachusetts

Review Meeting Minutes

Summary:

7:30 pm The Board will review and vote to approve meeting minutes from August 11, 2025.

ATTACHMENTS:

	Type	File Name	Description
🗋	Meeting Minute (draft)	08112025_DRAFT_Minutes_Redevelopment_Board.pdf	08112025 DRAFT Minutes Redevelopment Board

Arlington Redevelopment Board
Monday, August 11, 2025, at 7:30 PM
Community Center, Main Hall
27 Maple Street, Arlington, MA 02476
Meeting Minutes

This meeting was recorded by ACMi.

PRESENT: Rachel Zsembery (Chair), Eugene Benson, Shaina Korman-Houston, Kin Lau, Stephen Revilak

STAFF: Sarah Suarez, Assistant Director of Planning and Community Development

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The Chair called the meeting of the Board to order.

The Chair opened with **Agenda Item 1 – Review Meeting Minutes.**

July 14, 2025 – The Board members made no changes to the minutes. The Chair requested a motion to approve the July 14 minutes as submitted. Mr. Lau so moved, Mr. Benson seconded, and the Board voted unanimously in favor.

July 21, 2025 – The Board members made no changes to the minutes. The Chair requested a motion to approve the July 21 minutes as submitted. Mr. Lau so moved, Mr. Benson seconded, and the Board voted unanimously in favor.

The Chair moved to **Agenda Item 2 – Committee Appointments.**

Ms. Suarez explained there are currently four vacancies on committees for the Board to fill:

- Affordable Housing Overlay Committee (AHOC) – Town Meeting voted earlier this year to establish this committee, which includes a designee of the Board.
- AMPUp (Arlington Master/Comprehensive Plan Update) Advisory Committee – this committee has two vacancies.
- Envision Arlington Standing Committee (EASC) – one seat on this committee is a designee of the Board.

The Chair said that Carol Kowalski has expressed interest in serving on the AHOC. Mr. Revilak said that he supports the appointment of Ms. Kowalski; she is a planner and has a great deal of expertise in this area, including formerly serving as DPCD Director. Mr. Benson said that he agreed with Mr. Revilak. He asked if Ms. Kowalski had read the Motion to Commit that established the Committee. She said that she had done so. Mr. Benson explained that the Committee does not have the legal authority to submit a warrant article to Town Meeting, despite the wording of the Motion to Commit. It can ask the Board to submit a warrant article, or it can gather ten signatures from residents and submit a citizen petition. He said that the Board's designee will need to explain that to the Committee so that it has accurate information about what it can do. The other Board members agreed that Ms. Kowalski is well-qualified. The Chair asked for a motion to appoint Carol Kowalski as the Board's designee to the Affordable Housing Overlay Committee, Mr. Revilak so moved, Mr. Benson seconded, and the Board voted unanimously in favor.

The Chair said that Claire Ricker, DPCD Director, recommended appointing David Fatula to the AMPUp Advisory Committee. He is a local business owner and member of the Arlington Chamber of Commerce Board. Mr. Revilak said that Mr. Fatula attended the last Committee meeting, and it was great to have representation from the Chamber of Commerce, as economic development is a significant part of their work. He supports Ms. Ricker's recommendation. Mr. Benson asked Mr. Fatula about the interest he has expressed in increased commercial space. Mr. Fatula replied that he appreciated hearing a variety of opinions on many topics at the meeting he attended. He has been a resident of Arlington for almost twenty years, and he has two children in the school system, as well as being a local business owner. He thinks that Arlington could add a more diverse commercial tax base and business community; there is plenty of room for light industrial, maker space, office space. He is open to conversations about many different issues. The other Board members expressed their support. The Chair asked for a motion to appoint David Fatula to the AMPUp Advisory Committee, Mr. Lau so moved, Mr. Benson seconded, and the Board voted unanimously in favor.

The Chair said that the open seat on the EASC and the second open seat on the AMPUp Advisory Committee should be posted on the Town's website.

The Chair moved to **Agenda Item 3 – Public Hearing: Docket #3862, 126 Broadway (continued from July 21, 2025).**

Ms. Suarez explained that the applicant proposes to demolish an existing two-family dwelling and detached garage and construct a five-story mixed-use building with one 1,400 square-foot commercial unit and 14 residential units above, on the property located at 126 Broadway, at the corner of Broadway and Everett Street. The residential units are a mix of one- and two-bedroom units, including three affordable units. The entire building will be serviced by an elevator, and all residential units will be accessible. One of the five proposed parking spaces will be accessible. The property is located in the Residential Two-Family District and the Massachusetts Avenue/Broadway Multi-Family (MBMF) Housing Overlay District. The applicant has elected to apply the MBMF Overlay District to this development, pursuant to Section 5.9 of the Zoning Bylaw, which provides a process for the Board to review the project and potentially impose reasonable conditions through Site Plan Review for an as-of-right development proposal. For Site Plan Review, the Board uses the Environmental Design Review (EDR) standards in Section 3.4.4 of the Zoning Bylaw. Arlington adopted its multi-family housing overlay districts in response to a state mandate requiring communities served by the MBTA to create zoning districts that encourage the development of more multi-family housing in areas with access to public transit, with the goal of expanding housing options to a wider range of residents, reducing dependence on cars, and promoting more sustainable land use.

The Chair explained the difference between Site Plan Review and a Special Permit application. Special Permits are required in situations in which uses are conditionally allowed. A Site Plan Review applies in situations in which the proposed use is allowed in a particular district, subject to certain height limits and setback requirements. The Board will ensure that the applicant adheres to the height limits and setback requirements, but they are primarily responsible for reviewing proper site layout, environmental requirements, building design elements and neighborhood compatibility, and compliance with technical standards. This hearing will not discuss whether this application is a proper use or height for the property, as that has already been determined by the Zoning Bylaw requirements for the MBMF Overlay District.

The applicant was represented by owners Stephen Maimone and Thomas McDonagh, architect Timothy Johnson, civil engineer Alek Chongris, and attorney Michael Cabral. Mr. Maimone explained that they are proposing a rental project, rather than high-cost condos, in order to help meet Arlington's need for high quality and attainable housing. He and Mr. McDonagh are real-estate developers who own and manage multiple properties in Medford, Somerville, and the greater Boston area.

Mr. Johnson explained that the property will contain six two-bedroom units and eight one-bedroom units. The entrance to the commercial space is on Broadway, with on-street parking. The residential entrance faces Everett Street. The residential units will have an elevator serving all four floors. The parking entrance will also be on Everett Street, using the existing curb cut. The project includes five off-street parking spaces, a bicycle storage room for 22 bicycles, four visitor bicycle parking spaces, and a transit screen in the foyer with real-time data about bus routes and the location of BlueBikes. They will be adding a new ADA-compliant curb cut at the corner of Everett and Broadway, and they will create a new curb along Everett Street. In order to break up the massing, the top two floors have a setback on the Broadway side. The balconies will be recessed, which will create deep shadows. They also used tripartite division, with a strong horizontal division into three sections with different color facades, and with a clear horizontal line between the first and second floors and between the third and fourth floors.

Mr. Johnson said that the building meets the Stretch Code, which is 20% more energy efficient than current code. The elevator will bring in three-phase electric, making it an easy transition to an all-electric building. All exterior light fixtures will be downlit and shielded, using warm LED lights. Their LEED Consultant calculated enough points to earn LEED certification.

Mr. Chongris said that the total increase in impervious area will be around 1,300 square feet. All stormwater is being mitigated with a chamber system underneath the proposed driveway. It is modeled for up to a 100-year storm. The proposed runoff conditions will be better than or equal to existing conditions. The building will be serviced by sewer, water, and electric, and they are trying to keep utilities on Everett Street, so as not to dig up Broadway.

Mr. Lau noted that a portion of the building overhangs into the side yard setback, which he does not believe is allowable. He also noted that a section of the building cuts into the rear yard setback, which is not allowed.

Mr. Lau also said that the floor-to-floor heights are roughly 10 feet for all stories, including the first floor, but a commercial space would need to be at least 13-14 feet in height.

Mr. Lau noted that the plans do not show how the drainage from the flat roof will work. Mr. Johnson replied that it would be internally drained.

Mr. Lau also noted that the floor plans do not show space for laundry. Mr. Johnson replied that laundry is still under discussion; they may have a shared laundry room or have stackable appliances in the units. Mr. Lau said that his concern is how the laundry is vented. Mr. Johnson said that they would be using condensing dryers, which do not need to be vented. Mr. Lau asked that the plans be updated to make that clear. The Chair noted that no venting is allowed on the vertical surfaces, only on the roof. Mr. Lau noted that the same applies to kitchen vents. Mr. Johnson replied that the kitchens will have recirculating hood vents, and there will be no external vents.

Mr. Lau said that the lower floors appear to be double-hung windows, while the upper floors have awning-style windows. The lower floor windows also have trim, while the upper floor windows have a shadow box. Mr. Johnson said that the different windows are part of the distinction between the horizontal layers. Mr. Lau said that he thinks that having two different style windows in the residential units is not appropriate.

Mr. Lau said that he appreciates the stepback of the top two floors, but he would like to see more than that. Interrupting the cornice would break up the two massings on either side. He also thinks that it would be better to have balconies on the upper floors on the Everett Street side, so that the balconies break up the massing for all four residential stories. He said that bringing up the façade as part of the railing system on the front façade makes the balconies look more massive. It would be better to have a thinner line for the floor, with taller railings. Also, the depth of the cornice at the top of the building should be increased. He also noted that the sedum roof will need to be maintained, but it will be difficult to do.

Mr. Lau noted that the drive lane for parking is only 18’3”, but it is required to be 20’. He said that they can make two of the parking spaces compact spaces, which would make the drive lane 20’. In addition, if the first-floor height is increased, the accessible parking space could be moved inside, so it would be closer to the elevator.

Ms. Korman-Houston said that she appreciates the fact that they have included one more affordable unit than is required. She also noted that the plans seem to indicate that the only landscaping will be grass and a stockade fence, and she asked if that is their intention. Mr. Johnson said that they have not considered specific shrubs yet, but they can do that. Ms. Korman-Houston said that the Board would like to see a full landscaping plan with plant selections.

Ms. Korman-Houston said that the plans show one dumpster and do not show any recycling facilities.

Ms. Korman-Houston asked where exterior light fixtures would be located. Mr. Johnson replied that all entrances would have LED lights, and all overhangs would be utilized for lighting. The recessed balconies would also include lighting.

Ms. Korman-Houston asked how wide the existing curb cut is. Mr. Johnson said that it is a two-car driveway, so he estimates that it is 18 to 20 feet wide. He said that they do not intend to narrow the curb cut. She said that she is not sure that 20 feet is wide enough for two-way traffic, and she asked Mr. Johnson to look into that.

Ms. Korman-Houston asked if all 22 bicycles fit on the ground in the bicycle room. Mr. Johnson replied that there would be 11 two-tier lift-assist racks. They are spring loaded and allow bicycle storage on the upper level without having to lift the bike off the ground.

Ms. Korman-Houston said that the requirements for short-term bicycle parking will likely depend on what type of business ends up using the commercial space. She asked about the width of the grassy strip where the short-term bicycle parking is shown on the plans. Mr. Johnson said that it is the pre-existing strip and is in the public realm. She said that there are requirements about the required distance from the curb for bicycle parking. The Chair said that the Board would need to see a plan with the dimensions of the area with bike racks.

Ms. Korman-Houston noted that the Stormwater Management plan was created using NOAA Atlas 14, but NOAA Atlas 15 will come out in 2026. It is likely that Atlas 15 will require greater management, and it looks like they have sized the system for the minimum required in Atlas 14. She recommended that they consider adding greater capacity. Mr. Chongris said they would look at it.

Ms. Korman-Houston asked if they have a particular commercial use in mind, and the applicant replied that they did not. She noted that the plans do not show bathroom facilities for the commercial space, so that will need to be added.

Ms. Korman-Houston said that the windows on the side façades lack consistency and balance. She would like to see them more in alignment. She would also like to see a materials board.

Mr. Benson said that Section 5.3.9 allows balconies that are not more than 25 square feet to project up to 3.5 feet, but it is not clear whether this project falls within the 5.3.9 standards. The Board will need to see the dimensions of the balconies and how far they extend into the setback.

Mr. Benson is concerned about the bike racks on the planting strip. Typically, developments are required to have bicycle parking on their own property, which he would prefer. If it is necessary to have bike racks on the planting strip, they would have to get approval from the Town, and the Board would need to see that approval.

Mr. Benson said that the project will be required to plant street trees. The requirement is to have one street tree every 25 linear feet, which he thinks will mean one new tree on Broadway and two new trees on Everett. He suggested that the applicant talk to the Tree Warden to determine the types of trees.

Mr. Benson explained that four floors are allowed by right, and they can add one additional floor as a bonus. One way to get the bonus is to have commercial space for at least 60% of the ground floor, but the proposed commercial space is only about 40% of the ground floor. Another way to get the bonus is to add an additional affordable unit beyond the number required. With 14 units, they would be required to have two affordable units, and they are proposing three, so that would work to give them the bonus of a fifth story.

Mr. Benson said that the bylaw requires them to submit a solar assessment, and they need to install solar on at least 50% of the roof. The drawings submitted show solar panels on less than 50% of the roof, and the applicant has not submitted a solar assessment.

Mr. Benson noted that they cannot turn all the parking spaces into compact spaces, so they will need to look at the maximum allowed. He also noted that they do not technically need to provide an accessible space initially, but if a resident needs it, the parking configuration must be modified such that an accessible space is available. An accessible space must be the shortest possible travel distance to the entrance, but the plans designate the space farthest from the entrance as the accessible space. They either need to reconfigure the parking area with an accessible space close to the entrance, or show how they could accommodate an accessible space should one be needed. Mr. Johnson said that his understanding was that accessible spaces are not required for lots of less than 15 spaces. Mr. Benson replied that according to 521 CMR 10.3, accessible spaces need to be provided “in sufficient number to meet the needs of the dwelling unit occupants.”

Mr. Benson noted that 14 residential units would typically require 14 parking spaces. Including affordable units can give a 10% reduction, which in this case is a reduction of one space, so this project requires 13 parking spaces. They can request that the number of spaces be reduced with a Transportation Demand Management (TDM) plan. They have submitted such a plan, but it does not integrate the options required in Section 6.1.5.C of the zoning bylaw, so they need to return with a TDM plan that includes at least three of those options. If they intend to charge for parking as one of the options, they need to tell the Board how much they intend to charge. He said that he was recently told that the Legacy charges $175 per month for outside parking and $200 per month for garage parking. They also need to let the Board know how they intend to handle it if any of the residents of the affordable units want parking, and how they will comply with the affordability requirements.

Mr. Benson said that he would like to see a lighting plan. He appreciates that they intend to provide downlit fixtures, but the Board needs to see a plan including more details about the fixtures.

Mr. Benson expressed concern about pedestrian safety with vehicles exiting the parking area. He suggested putting up a mirror allowing drivers to see pedestrians coming.

Mr. Benson said that they will need to include a dumpster for trash and a separate one for recycling. He also noted that the plans show the dumpster being located behind a parking space, making it difficult to access.

Mr. Benson reiterated the Chair's point that if this building meets all the requirements of the zoning district, the Board cannot say no. The purpose of the hearing is to determine if it meets all the requirements. If it does, the Board can place reasonable conditions on the proposal, but not conditions that reduce the height or make it impossible to build.

Mr. Revilak said that his understanding of the requirement that commercial be at least 60% of the ground floor is that it refers Gross Floor Area (GFA). He noted that the table on the plans with GFA for each floor includes the parking area on the ground floor, but parking should not be included. Mr. Benson stated that he has a different understanding of the requirement. He also noted that the calculations of Floor Area Ration (FAR) are not done according to the zoning bylaw, because they have excluded storage areas. Section 5.3.22 explains the way that GFA and FAR are to be calculated.

Mr. Revilak reiterated Mr. Benson's point that the TDM plan does not actually include three options as required by the zoning bylaw. He also said that the TDM plan mentions a BlueBikes station at the corner of Nichols Ave and Arlington St, but there is no such intersection in Arlington. He thinks they meant to say Broadway and Grafton St. A Zipcar location is also inaccurately mentioned at the corner of Victoria St and Mass Ave, but is actually at the corner of Victoria St and Broadway.

Mr. Revilak said that the Board would need to see the particular model of two-tier bicycle racks that the applicant is proposing, so they can evaluate whether it meets the requirement that bicycle storage not require the bicycle to be lifted.

Mr. Revilak asked for clarification of how the stormwater management system would handle overflow. Mr. Chongris replied that it will be connected to the Town system, so overflow would not increase runoff on the site.

The Chair said that the color and materials on the color elevations and the renderings do not match, so it is difficult to know what is intended.

The Chair said that she does not think that the tripartite division works in context with the adjacent buildings. The top of the proposed building is not articulated at all. Every other building in the area has an articulated roof. She recommended that the applicant look at 80 Broadway, as well as other existing buildings in the neighborhood, to consider ways to add articulation. She also agreed with Mr. Lau that the residential windows should be consistent, and she would like them all to include trim. She also noted that the commercial unit has windows on the north side, which face directly into a stockade fence. Those windows are unnecessary for a commercial space, which would want storefront windows in the front, but would likely prefer wall space on the side. She would like the applicant to think carefully about how the commercial space should be designed and how it will be marketed.

The Chair asked how the garage would be lit. Mr. Johnson said that it would include down-lights. The Chair said that the plans need to indicate exactly what type of lights, where they will be located, and whether they will use motion sensors or always be on. Because the garage is open and exposed to adjacent properties, it will be important to understand how the lighting will work.

The Chair asked the applicant to make sure the site and existing building are being maintained appropriately.

Mr. Lau said that the rendering on sheet V03 does not match the building as shown on the floor plans. He asked for it to be updated, noting the Broadway setback at the building corner was shown inaccurately.

The Chair opened the floor to public comment:

- Hardeep Singh, 89 Everett Street – He asked that it be made clear to the neighbors what regulations are being met, and why plans are approved if they do not meet the regulations. If the project does not meet the requirement for 60% commercial space, it should be limited to the original requirements of the MBTA Communities district, which is a maximum of 7 units, with one parking space per unit. The plans show no bathroom in the commercial unit or designated loading area. The plans specify underground electric service, but

that does not exist in the neighborhood. The designs include a total of 20 bedrooms, so presumably that will mean at least 20 units, but only one dumpster is shown. The shadow study shows that the building will cast significant shadows cast over 128 Broadway, and it would ruin any opportunity for solar panels there.

- Jason Haas, 105 Everett Street – He is concerned about traffic congestion and parking. It is already difficult to see up and down Broadway from Everett. Broadway Transmission already absorbs a lot of the traffic on Arlington Eats market days, so if that were to change, the parking situation would be much worse. The crossing guard is only there about 50% of the time, and there are two nearby schools with many children walking. The lack of off-street parking in this project will push people to park on the street, which will decrease visibility further on Everett Street. He is also concerned about drainage. The curb cut is frequently covered in water. Given the increased rainfall of global warming, the stormwater standards should be increased. He noted that the owners began removing siding without the Town's permission, and a stop-work order was placed on the property. The existing property also needs to be maintained.
- Ratnakar Vellanki, 21 Adams St – He supports the proposed project. The overall size is already allowed in the zoning bylaw, but the request for a parking reduction is one of the discretionary items for the Board to consider. He lives two blocks away from the property, in a small unit, similar to the units proposed for this project, and he has not used a car to go to work in 15 years. There are many other options for transportation – four nearby bus routes, BlueBikes, the West Medford Commuter rail a 15-minute walk away, along with many places to walk locally. He thinks that this plan will work, even with limited off-street parking.
- Carl Wagner, Edgehill Road – He voted against the MBTA Communities Overlay District, which is what allows this development. This proposal is way too big. The Board has the authority to consider how it fits in the neighborhood. All the nearby houses are less than half the size of this proposal. It may be that the Overlay District allows it, but the size is not right for the neighborhood. Arlington overdelivered the MBTA Communities district by 50%. He asked that the developers reduce the size of the project by 50%. The residents also deserve to have one parking space per unit, perhaps with some reduction.
- Joe Pinciaro, 74 Oxford Street – He lives a few blocks away from this proposal. He does not know what a sufficient dumpster size for this project would be, but it needs to be seriously considered, along with how to keep rodents out of the dumpster. The Town's Open Space and Recreation Plan says, "Having enough trees so all people can experience the health, economic, and other benefits that trees provide. Lower scores are concentrated along Mass Ave and Broadway." He assumes that the big tree on Broadway would need to be cut down. He is also concerned about parking. The sign shown in the plans says "Neighborhood Space," which is misleading. It should be edited to say "Commercial Space."
- Adam Rodriguez, 285 Mass Ave, #17 – He moved to Arlington a few years ago and would like to settle down, but he can't afford anywhere in Arlington. This project is an important step toward making Arlington somewhere that young professionals and young families can afford to live. The commercial space, even if it's not perfect, is an important step toward trying to make it easier for local businesses to find space. The overall size of the project is in line with what's on Mass Ave and Broadway. He lives in a 35-unit building, and the building next door has 15 units; they all share one dumpster without rodent problems. The developer appears to have provided one parking space for every two-bedroom apartment. He has lived car-free in Arlington, and the location of this building would make that easy to do. This building is exactly the kind of space that he would like to live but cannot afford because Arlington is not dense enough to have lower housing prices.
- Asia Kepka, 17 Silk Street – She has lived in Arlington for over 20 years. Many people love the idea of not having a car, but they may not have that choice. Not everyone is able to work remotely or get to work by public transportation. It is extremely difficult to look for a job without a car. The lack of parking spaces will make it difficult to people to live there. She is opposed to the project because of safety concerns at the location.
- George Buckley, 164 Renfrew Street – This project is wrong for this location. A single dumpster is not enough, and the Town requires recycling and encourages composting. Three or four stories might work, but five stories is too much. The project seeks to maximize every deficit in the MBMF bylaw. The structure will have serious impacts on the neighborhood. It should be rejected for the shadows it will cast alone.
- Jonah Silberg, 62 Everett Street – He has a 2.5-year-old who will attend Thompson Elementary School. Everett Street already has traffic travelling too fast. He is concerned about adding additional traffic. He would like to know what the plan is for handling increased traffic, especially with the Thompson crossing. The rendering of the

building in context does not show 128 Broadway, the house next door, which this project will loom over. If this proposal were in the location of the old transmission shop, he would be happy to see a building of this size, but not in the proposed location.

- Alexa Brown, 35 Freemont Street – She is speaking on behalf of her friends who live at 128 Broadway. This building will severely impact their property. It will take away sunlight and impact parking. There is an elderly family member living at 128 Broadway who has an accessible parking space in front of the house, which will likely be impacted by this project because new residents won't know. She would not rent in this building because of the parking and the size of the units.
- Susan Stamps, 39 Grafton Street – This property is in her neighborhood. By and large, this is a good project, but she thinks that a few changes can be made to make it fit in better with the neighborhood. She agrees with the Chair that more articulation would help. She would also like the Board to require more landscaping to soften the impact. If possible, she would like the development to be combined with a new crosswalk, with bump-outs making it safer to cross.
- Andy Wong, 58 Adams Street – She agrees with Mr. Vellanki that it is not necessary to have a car. She has been living between Broadway and Mass Ave happily without a car because of the proximity to bus routes and the Minuteman Bikeway. She has many local friends who also do not have cars. She supports this project because she would like to see another commercial space. She regularly bikes along Broadway, and she does not see additional housing as a threat; additional cyclists and pedestrians would actually make it safer. She agrees with Ms. Stamps that traffic calming measures on Broadway would be great, but she does not think that this project will make the area less safe.
- Dominic Vecchione, 3 Country Club Drive – He said that the plan includes two doors on the side, which means that it will become a walkway and will not be a grass strip any longer. The elevations are a patchwork of brick, vertical siding, and horizontal siding, which makes no sense. The entire wall toward 128 Broadway is only five feet from the property line. If 128 is ever sold and redeveloped, it too could be built 5 feet from the property line, meaning there would only be 10 feet between two tall buildings with essentially a canyon in between. He asked if the fire department has looked at it to determine how they would fight a fire on that side of the building.
- Lauren Scott, 130 Broadway – He thinks that the commercial space is supbar, and it seems likely to be left empty, like many commercial spaces in Broadway. It's been compared to 80 Broadway, which has had an empty commercial space for a year. It seems to have been created to turn a profit for the housing while being called a commercial space.
- Paul Selker, 24 Central Street – He likes the project, but he thinks that the alignment of the windows is odd, and he would like to see it better aligned. He thinks that the bay window breaks up the façade nicely. He is glad to see bicycle storage. He is not sure how a commercial space could occupy 60% of the ground floor on a site like this, given the need for vehicle and bicycle parking. He does not understand the distinction between providing an accessible space and showing how an accessible space could be provided.

The Chair closed public comment.

The Chair summarized the items discussed thus far that the Board would like the applicant to address before the next hearing:

- Look at the elements of the building that are currently projecting into the setback in the side and rear.
- Look at the height proposed for first-floor commercial space, which should be 13-14 feet.
- Make sure that all venting is through the roof, not any of the façades; this should be addressed either in the narrative or the drawings.
- Make all the windows one style, either double-hung or awning.
- Add trim to all the windows as on the second and third floors.
- Review the window placement for consistency, balance, and alignment.
- Further break down the massing, particularly on the Everett Street side. This could be done through a stepback on the upper two floors, or by adding bay windows or balconies for more articulation.
- Do not bring the façade up as part of railings on all sides as it increases the monolithic feel.

- Articulate the corners of the buildings.
- Increase the depth of the cornice at the top of the building.
- Consider removing the first-floor windows that look out at the stockade fence.
- Integrate the sign into a sign band in a more deliberate and intentional manner.
- Ensure that the finishes in the perspectives, renderings, and sample boards are all in alignment.
- Determine a maintenance plan for sedum roof, including access.
- Increase the drive aisle width in the garage, and determine whether compact spaces are needed as a result.
- Move the potential future or integrated accessible space into the interior of the building.
- Given the two egress doors on the north side, create a pervious walkway to either the front or rear of the building from those doors.
- Submit a complete landscaping plan, including further landscaping for all areas that can be landscaped.
- Submit a lighting plan, including showing how the garage is lit and the impact that it may have on adjacent residences.
- Ensure that there is space for both recycling and trash, and that they are adequately sized. Show how they will be accessed.
- Show the dimensions of the grass area where the short-term bicycle parking is located.
- Either submit approval received from the Town for bicycle parking in the public way, or relocate it to the property.
- Look at the sewer capacity against the new standards being released in 2026.
- Add a restroom to the commercial space.
- Review the zoning bylaw requirement for planting street trees; upon initial review, it appears that one new street will be required on Broadway and two on Everett. Speak with the Tree Warden about species recommendations.
- Determine whether the bonus floor is based on the commercial space, in which case it needs to be 60% of the ground floor, or on the additional affordable unit.
- Submit a marketing plan for the commercial property, including how they intend for it to be used.
- Submit a solar assessment and show how 50% of the roof will be dedicated to solar.
- Submit an updated TDM showing specifically how they will meet the standards set out in the zoning bylaw.
- Address pedestrian safety with cars going in and out of the garage.
- Submit the specifications of the two-tier bike racks.
- Submit a maintenance plan for the existing site until construction begins.

Mr. Lau asked if the determination of the percentage of the commercial space was based on the Gross Floor Area, which would exclude parking. Mr. Revilak said that is his understanding. Mr. Benson said that his understanding is different; he believes that it is based on the area of the footprint of the building. The Chair said that the Board has clarified this issue on a prior project, and she will circulate those notes to the Board.

The Chair asked for a motion to continue the hearing to Monday, October 20, 2025. Mr. Lau so moved, Mr. Benson seconded, and the Board voted unanimously in favor.

The Chair moved to **Agenda Item 4 – Public Hearing: Docket #3849, 259 Broadway (continued from July 14, 2025).**

Ms. Suarez explained that on August 4, 2025, DPCD received an email from the applicant requesting that the application be withdrawn and the hearing closed without prejudice. The Chair asked if the Historical Commission has held a hearing on 259 Broadway. Mr. Revilak replied that the most recent agenda of the Historical Commission included a hearing for 259 Broadway. The Chair said that she attended an earlier meeting of the Historical Commission, at which an informal discussion of 259 Broadway took place, and her impression was that they would approve the plans. Mr. Revilak said that

a demolition permit was issued for 259 Broadway in late July. The Chair said that she would contact the Chair of the Historical Commission.

The Chair asked for a motion to accept the withdrawal of the application for Docket 3849, 259 Broadway, and close the hearing without prejudice. Mr. Lau so moved, Mr. Benson seconded, and the Board voted unanimously in favor.

The Chair moved to **Agenda Item 5 – Update on Special Permits for 1306-1308 Mass Ave and 190-200 Mass Ave.**

Ms. Suarez explained that Docket 3760 was an application by Farina Roofing Company for a Special Permit for work on 1306-1308 Mass Ave, which was granted on August 28, 2023, to change the use from retail to commercial office space greater than 3,000 square feet. The permit is valid for three years, but it is also subject to the statewide Mass Leads Act of 2024, which includes provisions to extend land-use permits by additional two years. As a result, the expiration date of this permit is August 28, 2028. The applicants applied for a building permit on October 10, 2023, but to date there has been no construction activity. The building permit has expired, so they would need to reapply to start work.

The Chair asked about the plywood used to board the property. Ms. Suarez said that Katie Luczai, Economic Development Coordinator, contacted Farina Roofing to notify them that they are not allowed to cover the windows with plywood. The Chair said that she is very disappointed that they have left the space in this condition, and she noted that they are in violation of the vacant storefront rule. She would like to know what fines the Town is using to enforce the rules, given the length of time the property has been in this condition. Ms. Suarez said that DPCD staff would work with the Inspectional Services Department on this issue.

Ms. Korman-Houston asked if they are maintaining the property in other ways, such as snow removal. Ms. Suarez said that the property is not in the best of condition, but she does not know if they shoveled snow over the winter. They have been notified that they need to remedy the situation.

Ms. Suarez explained that Docket 3650 was approved on February 27, 2023, for a Special Permit to develop a four-story mixed-use building at 190 & 192-200 Mass Ave, the corner of Mass Ave and Lake Ave. They have applied for a demolition permit. They are currently doing hazardous material remediation, which is being overseen by the state. That work is expected to be completed within the next few weeks, at which time they will be issued their demolition permit. The expiration date for the Special Permit is February 27, 2028. They have been providing documentation to DPCD to ensure that the project moves forward as smoothly as possible.

The Chair moved to **Agenda Item 6 – Open Forum.**

The Chair opened the floor to the public. Seeing no one who wished to speak, she closed the floor.

The Chair moved to **Agenda Item 5 – New Business.**

The Chair said that she was asked by the Town Moderator for ways to make it easier for Town Meeting members to receive and review the recommendations of the Select Board and Redevelopment Board before Town Meeting starts. He asked if there are changes to the warrant schedule or other changes that would make the work of the Board easier or provide more time for review. She noted that the schedule is extremely tight and often very difficult for the Board. Mr. Lau said that he thinks the Redevelopment Board needs more communication with the Select Board. Ms. Korman-Houston said that she would like more time to consider the issue and send some suggestions. The other Board members agreed. Mr. Benson said that the one suggestion he can immediately think of is closing the warrant earlier, to give the Board more time to review warrant articles and hold hearings. Mr. Revilak agreed and said that the entire process should start sooner. He also suggested considering a different approach to the hearing schedule. The Board has typically held hearings on all the warrant articles and then held one long meeting for deliberation and voting. The Select Board holds more rolling hearings, which means that the Board Report can be drafted more gradually and does not all have to be done very quickly after one final meeting. He suggested asking the Select Board Administrator how well that process works. The Chair said that she would forward the request to the rest of the Board, and she would compile suggestions from the Board and send them to the Town Moderator early next week.

Mr. Lau said that a section of Mass Ave in Arlington Heights has a long blue canopy that is torn and in bad condition. He would like the owners to be contacted. Ms. Suarez said that she would follow up with Ms. Luczai about this issue.

Mr. Revilak said that he understands the Town is looking for a consultant to work on updating the Municipal Vulnerability Plan, with a $60,000 budget and a three-year timeline. He asked Ms. Suarez for more information. She replied that an update to the plan is due, and the project is being led by David Morgan, Environmental Planner and Conservation Agent. She does not have many details at this time, but she will keep the Board updated.

The Chair asked for a motion to adjourn. Mr. Lau so moved, and Mr. Benson seconded. The Board voted and approved unanimously.

Meeting **Adjourned** at **9:50 pm**.

Documents used:

Agenda Item 1	07142025 DRAFT Minutes Redevelopment Board 07212025 DRAFT Minutes Redevelopment Board
Agenda Item 3	126 Broadway - application & impact statement - SPR 126 Broadway - architectural plans - UPDATED 08.07.25 126 Broadway - architectural plans - 07.08.25 - SUPERCEDED 126 Broadway - plot plans 126 Broadway - existing conditions photos - 07.08.25 126 Broadway - shadow study - 07.08.25 126 Broadway - Civil Engineering Plans - 07.09.2025 126 Broadway - Stormwater Narrative - 07.11.2025 126 Broadway - LEED Checklist - 08.07.2025 126 Broadway - TDM Plan - 08.08.2025 Docket 3862 126 Broadway - SPR Legal Notice 7-3, 7-10 SPR memo Docket 3862 126 Broadway - 08-07-2025
Agenda Item 4	259 Broadway withdrawal - 2025-08-04
Agenda Item 5	Project Update memo to ARB - 08-07-2025
Correspondence	126 Broadway: • J. Fleming - 7/11/25 • R. Gruber - 7/16/25 • C. Webb - 7/19/25 • A. Lee - 7/30/25 • G. Eliopoulos - 7/31/25 • J. Haas - 8/3/25 • C. Webb - 8/4/25 • A. Rapetov - 8/5/25 • C. Webb - 8/6/25 • N. Abaskharoun - 8/7/25 • K. Bartlett - 8/9/25 • X. Pretzer - 8/9/25 • D. Seltzer - 8/9/25 • M. Shaik - 8/9/25 • G. Buckley - 8/10/25 • A. Greenspon - 8/10/25 • D. Vecchione - 8/10/25 • L. Wiener - 8/10/25 • C. Farrell - 8/11/25 • J. O'Donnell - 8/11/25 • E. Schwarz - 8/11/25 • M. Marx - 8/11/25 • S. Sheffler - 8/11/25 455 Mass Ave: • R. Sessa - 7/30/25 1500 Mass Ave: • D. Seltzer - 7/25/25 Multiple projects: • W. Evans - 7/28/25

DRAFT

Town of Arlington, Massachusetts

Public Hearing: Docket #3866, 18 Grafton Street

Summary:

7:40 pm Notice is herewith given that an application has been filed on August 14, 2025, by Albert Azatyants, SA Development Corp, 200F Main St, Box 352, Stoneham, MA 02180, to open Docket #3866 in accordance with the provisions of the Town of Arlington Zoning Bylaw Sections 5.9.3, Site Plan Review. The applicant proposes to demolish an existing single-family dwelling and construct a four-unit residential building on the property located at 18 Grafton Street, Arlington, MA, in the R2 Residential District and Neighborhood Multi-Family Housing Overlay District.

- DPCD staff will be provided 5 minutes for an overview of their Public Hearing Memorandum.
- Applicant will be provided 10 minutes for an introductory presentation.
- Members of the public will be provided time to comment.
- Board members will discuss Docket and may vote.

ATTACHMENTS:

	Type	File Name	Description
🗋	Application	18_Grafton_St_-_Site_Plan_Review_Application_-_8-8-25.pdf	18 Grafton St - Site Plan Review Application - 8-8-25
🗋	Application	18_Grafton_St_-_Impact_Statement_-_8-6-25.pdf	18 Grafton St - Impact Statement - 8-6-25
🗋	Application	18_Grafton_St_-_Proposed_Plot_plan_-_8-1-25.pdf	18 Grafton St - Proposed Plot plan - 8-1-25
🗋	Application	18_Grafton_St_-_Plans___Drawings_-__8-8-25.pdf	18 Grafton St - Plans & Drawings - 8-8-25
🗋	Application	18_Grafton_St_-_LEED_Checklist_-_8-11-25.pdf	18 Grafton St - LEED Checklist - 8-11-25
🗋	Application	18_Grafton_St_-_Civil_Set-ST_-_8-1-25.pdf	18 Grafton St - Civil Set-ST - 8-1-25
🗋	Application	18_Grafton_St_-_Sustainability_Analysis_-_8-6-25.pdf	18 Grafton St - Sustainability Analysis - 8-6-25
🗋	Application	18_Grafton_St_-_Stormwater_report_-_7-21-25.pdf	18 Grafton St - Stormwater report - 7-21-25
🗋	Application	Docket_3866_18_Grafton_St_-_SPR_Legal_Notice_8-21__8-28.pdf	Docket 3866 18 Grafton St - SPR Legal Notice 8-21, 8-28
🗋	Application	SPR_memo_Docket_3866_18_Grafton_St_-_09-04-2025.pdf	SPR memo Docket 3866 18 Grafton St - 09-04-2025

PLANNING & COMMUNITY DEVELOPMENT
2025 AUG 13 AM 10:41
TOWN CLERK
ARLINGTON, MA. 02476
2025 AUG 14 AM 9:07

REQUIRED SUBMITTALS CHECKLIST

Submit checklist with application. One electronic copy of your application is required; print materials may be requested.

☑ **Application Cover Sheet (project and property information, applicant information)**

☑ **Dimensional and Parking Information Form (see attached)**

☑ **Impact statement**

- Respond to Environmental Design Review (Section 3.4) criteria on pages 6-7 of this packet.
- Include summary of neighborhood outreach, if held or planned.

☑ **Drawing and photographs of existing conditions**

- Identify boundaries of the development parcel and illustrate the existing conditions on that parcel, adjacent streets, and lots abutting or directly facing the development parcel across streets.
- Photographs showing conditions on the development parcel at the time of application and showing structures on abutting lots.

☑ **Site plan of proposal. Must include:**

- Zoning boundaries, if any, and parcel boundaries;
- Setbacks from property lines;
- Site access/egress points;
- Circulation routes for pedestrians, bicyclists, passenger vehicles, and service/delivery vehicles;
- New buildings and existing buildings to remain on the development parcel, clearly showing points of entry/exit;
- Other major site features within the parcel or along its perimeter, including but not limited to trees, fences, retaining walls, landscaped screens, utility boxes, and light fixtures;
- Spot grades or site topography and finish floor level;
- Open space provided on the site;
- Any existing or proposed easements or rights of way;
- Any wetlands or wetland resource areas.

☑ **Drawings of proposed structure/sample materials**

- Schematic drawings of each interior floor of each proposed building, including basements.
- Schematic drawings of the roof surface(s), identifying roof materials, mechanical equipment, screening devices, green roofs, solar arrays, usable outdoor terraces, and parapets.
- Elevations of each exterior façade of each building, identifying floor levels, materials, colors, and appurtenances such as mechanical vents and light fixtures.
- Drawings from one or more prominent public vantage point illustrating how the proposed project will appear within the context of its surroundings.
- Physical sample façade materials and color samples.
- Lighting plan and fixtures if not provided on site or landscaping plan.

☑ **Vehicle, Bicycle, and Service Vehicle Plans**

- Parking and loading plans, including all vehicle and bicycle parking facilities located on the parcel or within a structure, showing dimensions of spaces, driveways, access aisles, and access/egress points. Include line-of-sight and turning radius along with length and type of delivery truck.

- If you are requesting a reduction in the amount of required parking, include a Transportation Demand Management Plan per Section 6.1.5.
- Plans of all bicycle parking facilities located on the lot and within any structure, including dimensions of spaces and access routes and types of bicycle racks.

☑ **Sustainable Building and Site Design Elements**

- A solar energy systems assessment per Section 6.4, which must include:
  - An analysis for solar energy system(s) for the site detailing layout and annual production;
  - The maximum feasible solar zone area of all structures; and,
  - Drawings showing the solar energy system you propose, with a narrative describing the system, the reasons the system was chosen, and how the system meets the requirements of Section 6.4; or
  - A detailed explanation of why the project meets an exemption of Section 6.4.2.
- LEED checklist and narrative per EDR criterion L. Applicants MUST submit a current LEED checklist, appropriate to the type of development, annotated with narrative description that indicates how the LEED performance objectives will be incorporated into the project. LEED checklists may be found at https://www.usgbc.org/resources, under "RATING SYSTEM."

☑ **Proposed landscaping *(may be incorporated into site plan)***

Schematic drawing(s) illustrating and clearly labels all landscape features, including hardscape materials, permeable areas, plant species, and light fixtures.

☑ **Residential and commercial units**

Describe the number, locations, and sizes of residential units, and of affordable units if any. All affordable units must meet the State's standard for inclusion on the Arlington Subsidized Housing Inventory. Describe the number, locations, and sizes of commercial units, if any. Indicate if units are rental or ownership.

☐ **Plans for sign permits, if signage is an element of development proposal**

☑ **Stormwater management plan**

(for stormwater management during construction for projects with new construction)

☑ **SketchUp Compatible Model, if required**

☑ **Application fee**

(The fee is $0.20 per square foot of new construction, or a minimum fee of $500. See Rule 12 of the ARB Rules and Regulations for more information.)

FOR OFFICE USE ONLY

Docket #: 3866

____ Site Plan Approved Date: _____

____ Received evidence of filing with Registry of Deeds Date: _____

____ Notified Building Inspector of Site Plan Review filing Date: _____

PLANNING & COMMUNITY DEVELOPMENT
2025 AUG 13 AM 10:41
TOWN CLERK
ARLINGTON, MA

DOCKET 3866

COVER SHEET

Application for Site Plan Review

PROPERTY AND PROJECT INFORMATION

1. Property Address 18 Grafton st

   Assessors Block Plan, Block, Lot No. _____ Zoning District NMF

2. Deed recorded in the Registry of deeds, Book 84307, Page 116

   or- registered in Land Registration Office, Cert. No. _____, in Book 189, Page 42.

3. Present Use of Property (include # of dwelling units, if any)

   Single family dwelling

4. Proposed Use of Property (include # of dwelling units, if any)

   4 Residential Dwelling units

APPLICANT INFORMATION

1. **Applicant:** Identify the person or organization requesting the Site Plan Review.

   Name of Applicant(s) Albert Azatyants

   Organization SA Development Corp

   Address 200F Main street Box 352 (Street), Stoneham, MA, 02180 (City, State, Zip)

   Phone 6178615622 Email albert@unionsqcapital.com

2. **Applicant Interest:** The applicant must have a legal interest in the subject property.

   - [x] Property owner
   - [ ] Purchaser by land contract
   - [ ] Purchaser by option or purchase agreement
   - [ ] Lessee/tenant

3. **Property Owner**: Identify the person or organization that owns the subject property.

   - [ ] Check here if applicant is also the property owner

   Name Albert Azatyants Title Manager

   Organization Arlington 18 Grafton Street LLC Phone 6178615622

   Address 200F Main street Box 352 (Street), Stoneham, MA, 02180 (City, State, Zip)

   Phone 6178615622 Email albert@unionsqcapital.com

4. **Representative:** Identify any person representing the property owner or applicant in this matter.

Name Trevor O'leary Title Project Manager

Organization MGD Plus LLC Phone 7816353456

Address 411 lexington st (Street), Aurbundale, MA, 02466 (City, State, Zip)

Phone 7816353456 Email Toleary@mgdplus.com

5. Site Plan Review applied for in accordance with the following Zoning Bylaw section(s):

section(s)	title(s)
5.9	Multi-Family Housing overlay districts established under massachusetts general laws chapter 40A, § 3A

6. List any waivers or bonuses being requested and the Zoning Bylaw section(s) which refer to the minimum or maximum requirements from which you are seeking relief:

section(s)	title(s)
5.9.4(10)	Dimensional Requirements

7. Please attach a statement that describes your project and provide any additional information that may aid the ARB in understanding the approval you request. Include any reasons that you feel you should be granted the requested approval.

(In the statement below, check the options that apply)

The applicant states that Albert Azatyants is the owner ☑ or occupant ☐ or purchaser under agreement of the property in Arlington located at 18 Grafton which is the subject of this application; and that unfavorable action ☐ or no unfavorable action ☑ has been taken by the Zoning Board of Appeals on a similar application regarding this property within the last two years. The applicant expressly agrees to comply with any and all conditions and qualifications imposed upon this permission, either by the Zoning Bylaw or by the Redevelopment Board, should the site plan be approved.

Signature of Applicant(s):

200F Main street Box 352 — Address

6178615622 — Phone

DIMENSIONAL AND PARKING INFORMATION

Property Location: 18 Grafton st

Zoning District: NMF

Applicant: _____

Address: _____

Present Use/Occupancy: No. of Dwelling Units and sizes:
Residential: Single family dwelling

Uses and their gross square feet:

Proposed Use/Occupancy: No. of Dwelling Units and sizes:
Residential : 4 units

Uses and their gross square feet:
RESIDENTIAL 5590 SF

		Present Conditions	Proposed Conditions	Min. or Max. Req'd by Zoning for Proposed Use	
Lot Size		4804	4804	min.	N/A
Frontage		N/A	N/A	min.	N/A
Floor Area Ratio[1]		N/A	N/A	max.	N/A
Lot Coverage (%), where applicable		N/A	N/A	max.	N/A
Lot Area per Dwelling Unit (sf)		N/A	N/A	min.	N/A
Front Yard Depth (feet)		12.7	10.5	min.	15
Side Yard Width (feet)	right side	7.1	17.5	min.	5 (SUM OF 2 SIDES= 20')
	left side	12.2	5.3	min.	5 (SUM OF 2 SIDES= 20')
Rear Yard Depth (feet)		15.7	15	min.	20
Height	stories	3	3	stories[2]	3
	feet	30.4	34.8	Feet	35
Open Space (% of G.F.A. or lot size)[3]		N/A	N/A	min.	N/A
	Landscaped (sf)	N/A	N/A	(sf)	N/A
	Usable (sf)	N/A	N/A	(sf)	N/A
Parking Spaces (#)[4]		2	4	min.	4
Parking Area Setbacks (feet) *(where applicable)*		N/A	N/A	min.	N/A
Loading Spaces (#)		N/A	N/A	min.	N/A
Bicycle Parking[5]	short term	N/A	2	min.	1
	long term	N/A	6	min.	6

[1] FAR is based on Gross Floor Area. See Section 5.3.22 for how to calculate Gross Floor Area. On a separate page, provide the calculations you used to determine FAR, including the calculations for Gross Floor Area.

[2] Where two heights are noted in the dimensional tables, refer to Section 5.3.19, Reduced Height Buffer Area to determine the applicable height.

[3] Per Section 5.3.22(C), district dimensional requirements are calculated based on GFA or lot size, depending on the zoning district. On a separate page, show how you determined the open space area amounts.

[4] See Section 6.1, Off-Street Parking and Section 5.9.4.F. If requesting a parking reduction, refer to Section 6.1.5.

[5] See Section 6.1.12, Bicycle Parking, or refer to the Bicycle Parking Guidelines.

MGD+
HABITAT DESIGN

IMPACT STATEMENT

Building Address: 18 Grafton Street, Arlington
Prepared By: MGD+ LLC / Derek Rubinoff

Preservation of Landscape
The proposed building will be located approximately in the same footprint as the existing structure. The lot is relatively flat, with no trees impacted by the proposed work. The single street tree located at the front left corner of the lot will be protected throughout the duration of construction.

Relation of Buildings to Environment
The proposed structure maintains the same orientation as the existing building. The primary entrance to the first-floor front unit faces Grafton Street, while the remaining unit entrances are recessed to appear secondary, maintaining the aesthetic of a single-family residence. The driveway remains on the left side of the property, consistent with current conditions. The building consists of two full stories and incorporates dormers at the third level, reflecting both the existing building and the architectural context of adjacent homes. A shed for bicycle storage will replace the existing garage in the back-left corner of the lot.

Open Space
Usable open space is primarily situated at the rear of the property, consistent with the current layout. The front yard will be landscaped with lawn areas similar to existing conditions. For the two larger units, roof decks will be provided on the front and left elevations for private outdoor access. Landscaping along the left and right sides of the structure is limited due to driveway placement and sun exposure. The left side driveway remains in its existing location, while the right side retains access pathways to the lower-level unit entries, aligned with the existing concrete walkway extending to the rear of the lot.

Circulation
Pedestrian circulation from all units connects directly to Grafton Street. Residents may access the parking area via the public sidewalk or by utilizing the rear walkway adjacent to the rear open space.

Surface Water Drainage
Stormwater runoff from the roof will be directed through a gutter system to a subsurface stormwater management system located beneath the driveway. This system includes four Cultec chambers, as detailed in the civil engineering plans. A trench drain will be installed at the terminus of the parking area to capture surface runoff. Window wells will be equipped with precautionary drains, which will also discharge into the stormwater system.

Utility Service
All utility lines will be installed underground. New 1” domestic water service lines will be extended from the 6” municipal main to each unit. A dedicated 2” line will provide water for the fire suppression system. A new sewer line will also be installed and encased in concrete, per the civil plans, due to its proximity to the water lines.

Advertising Features
Units will be marketed as walkable residential units. Listings will be posted on MLS or similar real estate platforms. A standard real estate sign will be displayed at the front of the property, in keeping with neighborhood practices.

Special Features
A six-foot-tall privacy fence will be installed along the perimeter of the property. Secure bicycle storage will be provided in a dedicated shed located at the rear of the lot.

Safety
All units will meet applicable code requirements for means of egress. Any deck, landing, or similar feature exceeding 30 inches in height will include a code-compliant guardrail. Entry doors are located within the required NFPA distance from Grafton Street. All units will be equipped with the infrastructure to support optional user-installed surveillance systems.

Heritage
The building design complements the residential character of Grafton Street. The mansard-style roof maintains a traditional two-and-a-half-story appearance, consistent with neighboring structures.

Microclimate
All walkways will be constructed using light gray porous paving materials to reduce solar heat gain and promote natural groundwater recharge. The roof will be surfaced with a light-colored EPDM membrane, consistent with EPA recommendations for cool roof installations.

Sustainable Building and Site Design
The project will comply with the Massachusetts Stretch Energy Code. The building will operate fully on electricity for heating, cooling, and cooking. Electric vehicle-ready circuits will be installed at the parking area to accommodate future EV charger installations. The roof structure will be designed to be solar-ready. See the Sustainable Buildings and Site Design Analysis for further details.

LEGEND

⊡	BOUND
O	IRON PIN/PIPE
⊙	STONE POST
	TREE
	TREE STUMP
	SHRUBS/FLOWERS
	SIGN
	BOLLARD
Ⓢ	SEWER MANHOLE
Ⓓ	DRAIN MANHOLE
	CATCH BASIN
Ⓦ	WATER MANHOLE
	WATER VALVE
	HYDRANT
	GAS VALVE
Ⓔ	ELECTRIC MANHOLE
EL	ELECTRIC HANDHOLE
	UTILITY POLE
	LIGHT POLE
Ⓜ	MANHOLE
×148.00	SPOT GRADE
TW	TOP OF WALL
BW	BOTTOM OF WALL
	EXISTING BUILDING
	RETAINING WALL
	STONE WALL
	FENCE
	TREE LINE
S	SEWER LINE
D	DRAIN LINE
W	WATER LINE
G	GAS LINE
E	UNDERGROUND ELECTRIC LINE
OHW	OVERHEAD WIRES
145	CONTOUR LINE (MJR)
146	CONTOUR LINE (MNR)
F.F.	FIRST FLOOR
B.F.	BASEMENT FLOOR
G.F.	GARAGE FLOOR
T.O.F.	TOP OF FOUNDATION
174	PROPOSED CONTOUR LINE

NOTES:

1. INFORMATION SHOWN ON THIS PLAN IS THE RESULT OF A FIELD SURVEY PERFORMED BY SPRUHAN ENGINEERING, P.C. AS OF 5/10/2025.

2. DEED REFERENCE 1: BOOK 22125, PAGE 67
PLAN REFERENCE 1: BOOK 189 PG 42
MIDDLESEX SOUTH DISTRICT REGISTRY OF DEEDS.

3. THIS PLAN IS NOT INTENDED TO BE RECORDED.

4. I CERTIFY THAT THE DWELLING SHOWN IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD ZONE. IT IS LOCATED IN ZONE X, ON FLOOD HAZARD BOUNDARY MAP NUMBER 25017C0417E, PANEL NUMBER 0417E, IN COMMUNITY NUMBER: 250177, DATED 06/04/2010.

5. THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST. A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO OBSERVE ANY APPARENT USES OF THE LAND; HOWEVER THIS NOT CONSTITUTE A GUARANTEE THAT NO SUCH EASEMENTS EXIST.

6. FIRST FLOOR ELEVATIONS ARE TAKEN AT THRESHOLD.

7. NO RESPONSIBILITY IS TAKEN FOR ZONING TABLE AS SPRUHAN ENGINEERING, P.C. ARE NOT ZONING EXPERTS. TABLE IS TAKEN FROM TABLE PROVIDED BY LOCAL ZONING ORDINANCE. CLIENT AND/OR ARCHITECT TO VERIFY THE ACCURACY OF ZONING ANALYSIS.

8. THE ELEVATIONS SHOWN ARE ON ARLINGTON DATUM.

10. ZONING DISTRICT R2 – TWO FAMILY.

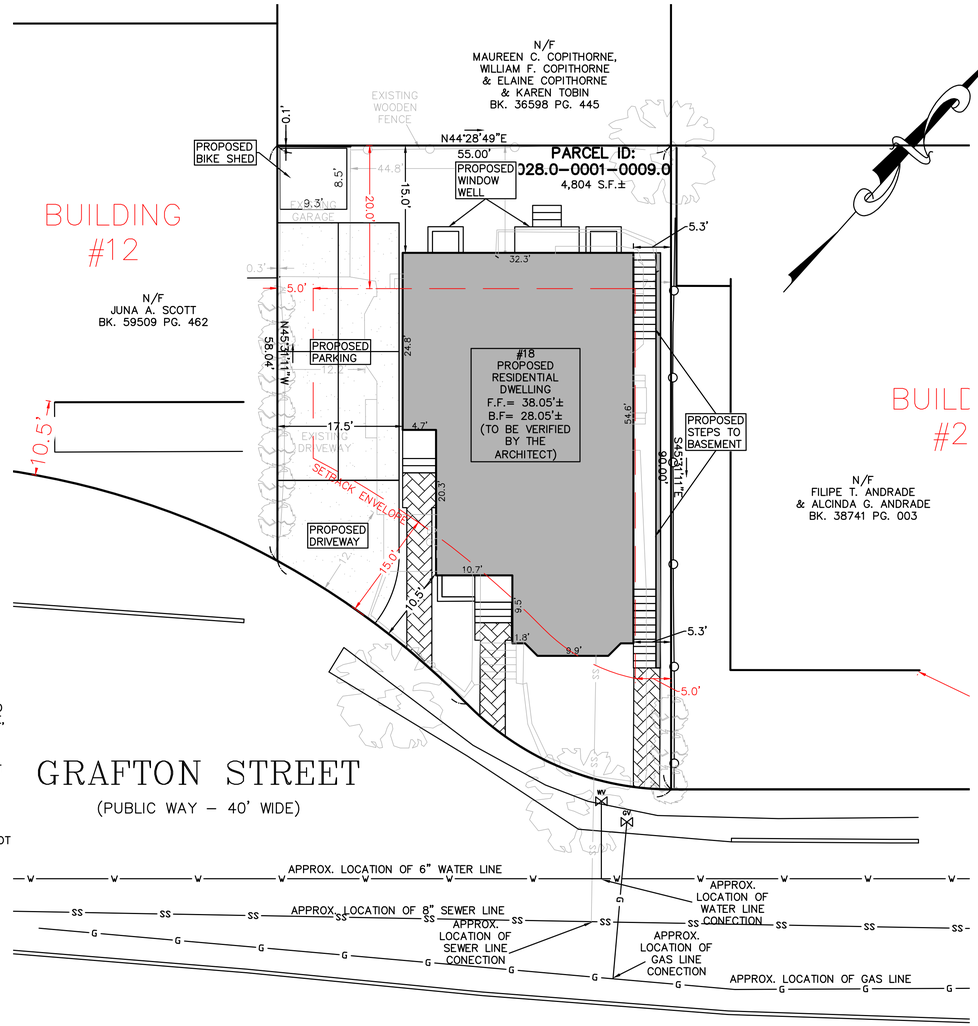
FIRST FLOOR AND FOUNDATION ELEVATIONS TO BE VERIFIED BY ARCHITECT PRIOR TO ANY CONCRETE BEING POURED.

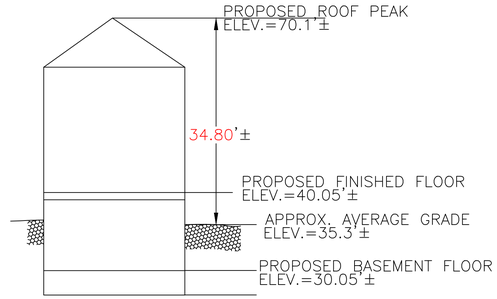
REFER TO ARCHITECTURAL PLANS FOR ALL ZONING RELATED INFORMATION

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.





PROPOSED PROFILE
NOT TO SCALE

ZONING LEGEND

MBTA OVERLAY DISTRICT – NEIGHBORHOOD MULTI-FAMILY NMF

		REQUIRED	PROPOSED
SETBACKS	FRONT (MIN)	15'	10.5'
	SIDE LEFT(MIN)	5'	17.5'
	SIDE RIGHT(MIN)	5'	5.3'
	REAR (MIN)	20'	15'
MAX. BLDG. HEIGHT		35.0'	34.8'
MAX. NO. STORIES		3	3

Spruhan Engineering, P.C.
80 JEWETT ST, (SUITE 2)
NEWTON, MA 02458
Tel: 617-816-0722
Email:edmond@spruhaneng.com

18 GRAFTON STREET
ARLINGTON
MASSACHUSETTS

SURVEY PLAN

REVISION BLOCK

DESCRIPTION	DATE

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COMMONWEALTH OF MASSACHUSETTS
CHRISTOPHER C. CHARLTON
NO. 49649
PROFESSIONAL LAND SURVEYOR

DATE:	8/1/2025
DRAWN BY:	G.P
CHECKED BY:	E.S
APPROVED BY:	C.C

PROPOSED PLOT PLAN

SHEET 1 OF 1

18 GRAFTON STREET

COVER PAGE

AUGUST 8 , 2025

MGD
HABITAT DESIGN

411 Lexington St,Newton - MA 02466
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SHEET LIST

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PAGE A-02	EXISTING CONDITIONS
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ZONING ANALISYS SUMMARY

ADDRESS	18 GRAFTON STREET ARLINGTON MA 02474
ZONING DISTRICT	NMF
LOT SIZE	4804 SF

DESCRIPTION	CODE REFERENCE	REQUIRED / ALLOWED	EXISTING	PROPOSED
USE				
LOT AREA		4804 SF	4804 SF	4804 SF
FAR - GFA		F.A.R NOT REQUIRED	F.A.R NOT REQUIRED	F.A.R NOT REQUIRED
BUILDING HEIGHT		35.0 ft /	SEE CIVIL DWGS	SEE CIVIL DWGS
MIN. USABLE OPEN SPACE		NOT REQUIRED	NOT REQUIRED	NOT REQUIRED
MAX. LOT COVERAGE		NOT REQUIRED	NOT REQUIRED	NOT REQUIRED
SETBACKS				
FRONT		15.0 ft	SEE CIVIL DWGS	SEE CIVIL DWGS
SIDE *(LEFT)*		5.0 ft	SEE CIVIL DWGS	SEE CIVIL DWGS
SIDE *(RIGHT)*		5.0 ft	SEE CIVIL DWGS	SEE CIVIL DWGS
REAR		20.0 ft	SEE CIVIL DWGS	SEE CIVIL DWGS

ARLINGTON ZONING BYLAWS			
ZONING DISTRICT: NMF			
LOT SIZE: 4,804 SF	**ARLINGTON ZONING BYLAWS**		
	ALLOWED	**PROPOSED**	**REFERENCE SECTION**
PROPOSED USE	RESIDENTIAL	RESIDENTIAL	SECTION 5
SITE DIMENSIONAL STANDARDS			
LOT SIZE	NO REQUIREMENT	COMPLIANT	SECTION 5
LOT FRONTAGE (MIN.)	NO REQUIREMENT	COMPLIANT	SECTION 5
SETBACKS	FRONT: 15' OR AVERAGE	SEE CIVIL DRAWINGS - COMPLIANT	SECTION 5
	SIDE: 5'	SEE CIVIL DRAWINGS - COMPLIANT	SECTION 5
	REAR: 20'	SEE CIVIL DRAWINGS - COMPLIANT	SECTION 5
LOT COVERAGE	NO REQUIREMENT	SEE CIVIL DRAWINGS - COMPLIANT	SECTION 5
LANDSCAPED / USABLE OPEN SPACE	NO REQUIREMENT	SEE CIVIL DRAWINGS - COMPLIANT	SECTION 5
LOT AREA PER DWELLING UNIT	NO REQUIREMENT	COMPLIANT	SECTION 5
PARKING PLACEMENT	NO PARKING ALLOWED IN FRONT SETBACK	SEE CIVIL DRAWINGS - COMPLIANT	SECTION 6
BICYCLE PLACEMENT	1.5 SPACES PER DWELLING UNIT	COMPLIANT	SECTION 6
BUILDING MASSING			
F.A.R	NO REQUIREMENT	COMPLIANT	SECTION 5
MAX HEIGHT	3 STORIES / 35 FEET	3 STORIES / 34 FEET - COMPLIANT	SECTION 5
LOT COVERAGE	NO REQUIREMENT	SEE CIVIL DRAWINGS - COMPLIANT	

18 GRAFTON STREET

SHEET LIST & CODE SUMMARY

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Scale 1 1/2" = 1'-0"

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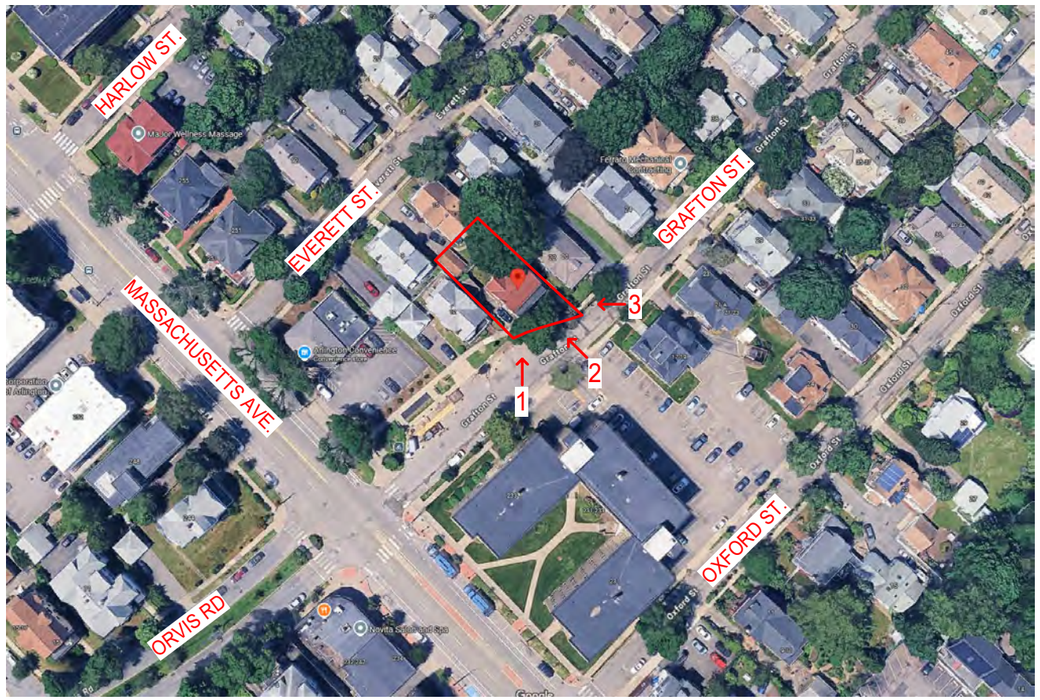
VIEW 1

VIEW 2

VIEW 3



LOCATION MAP

18 GRAFTON STREET

EXISTING CONDITIONS

AUGUST 8 , 2025

Scale

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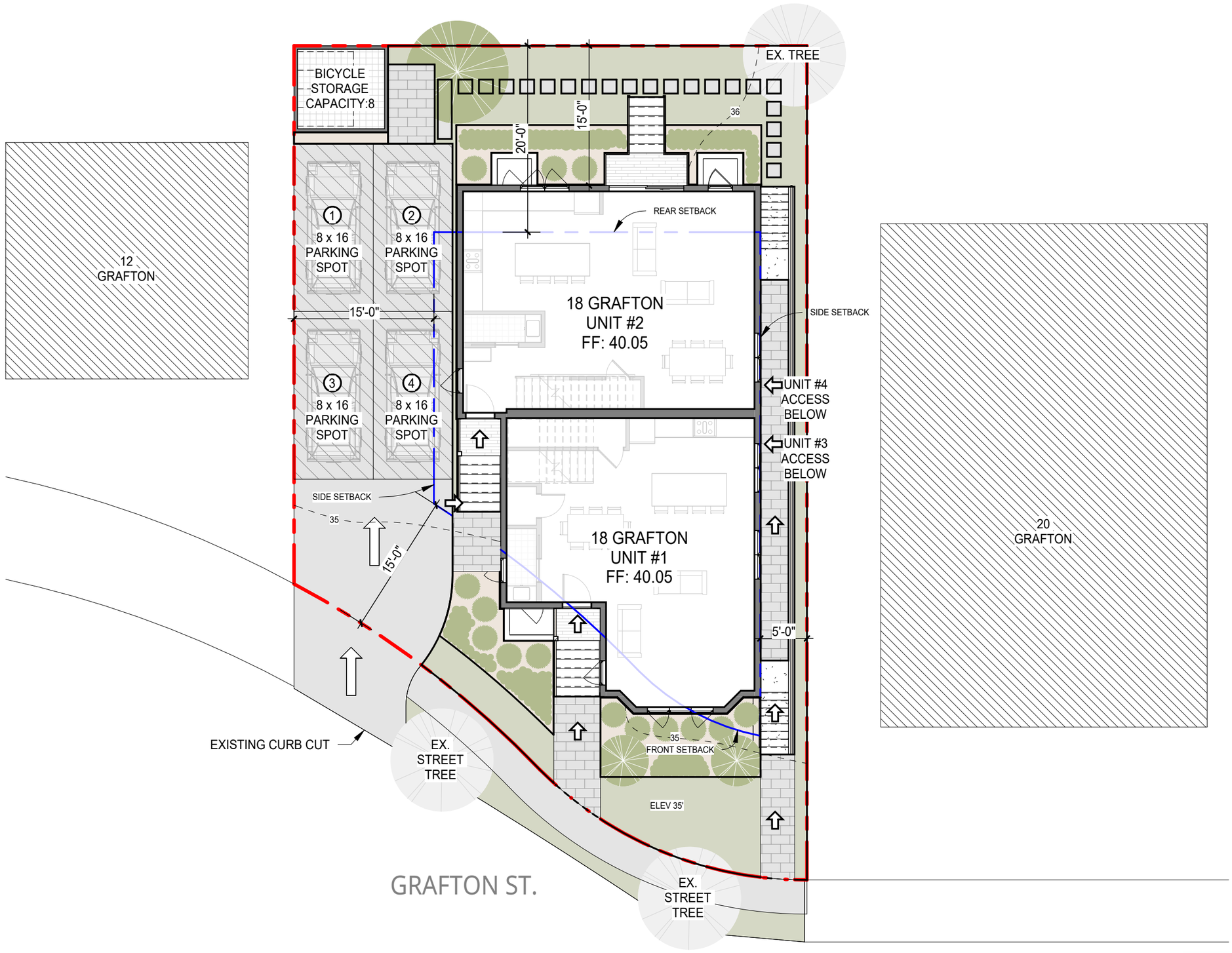

18 GRAFTON STREET

ARCHITECTURAL SITE PLAN

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Scale 3/32" = 1'-0"

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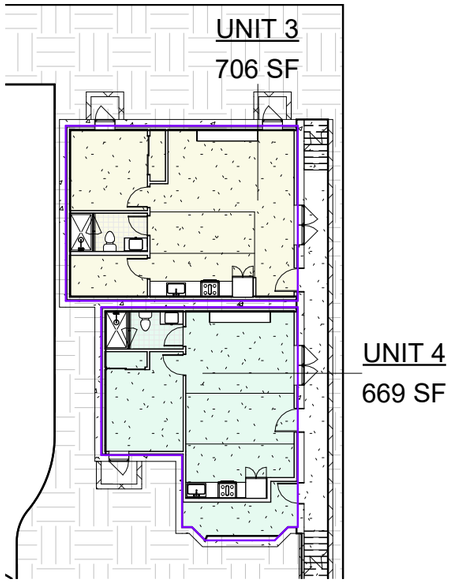
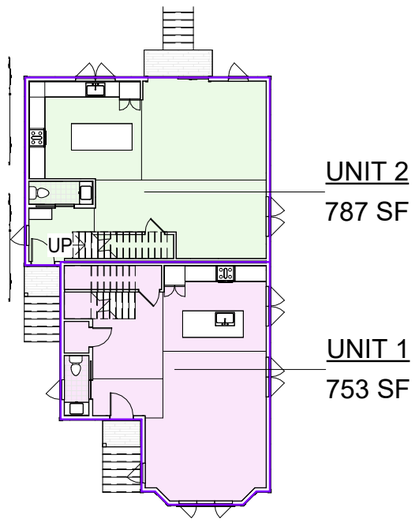
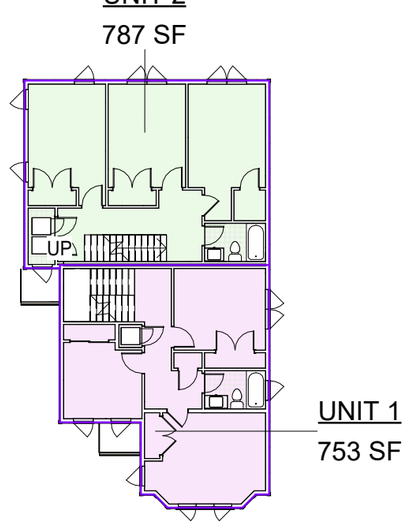
MARKETABLE FLOOR AREA		
LEVEL	**AREA (SF)**	**COMMENTS**
UNIT 1		
01 - First Floor	753 SF	
02 - Second Floor	753 SF	
03 - Third Floor	514 SF	
UNIT 2	2021 SF	
01 - First Floor	787 SF	
02 - Second Floor	787 SF	
03 - Third Floor	620 SF	
UNIT 3	2194 SF	
00 - Basement	706 SF	
UNIT 4	706 SF	
00 - Basement	669 SF	
TOTAL FLOOR AREA	669 SF 5590 SF	



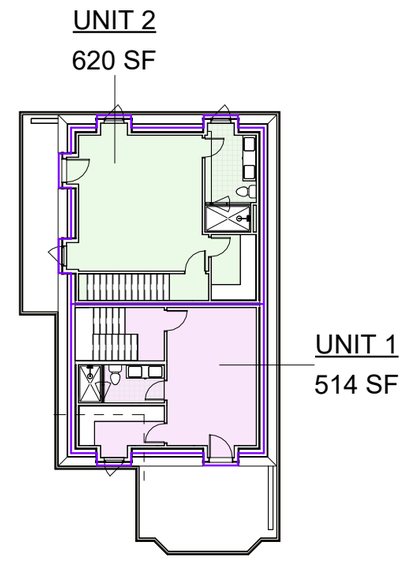
5 00 - Basement
1" = 20'-0"



6 01 - First Floor
1" = 20'-0"



7 02 - Second Floor
1" = 20'-0"



8 03 - Attic
1" = 20'-0"

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AREA PLANS

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Scale 1" = 20'-0"

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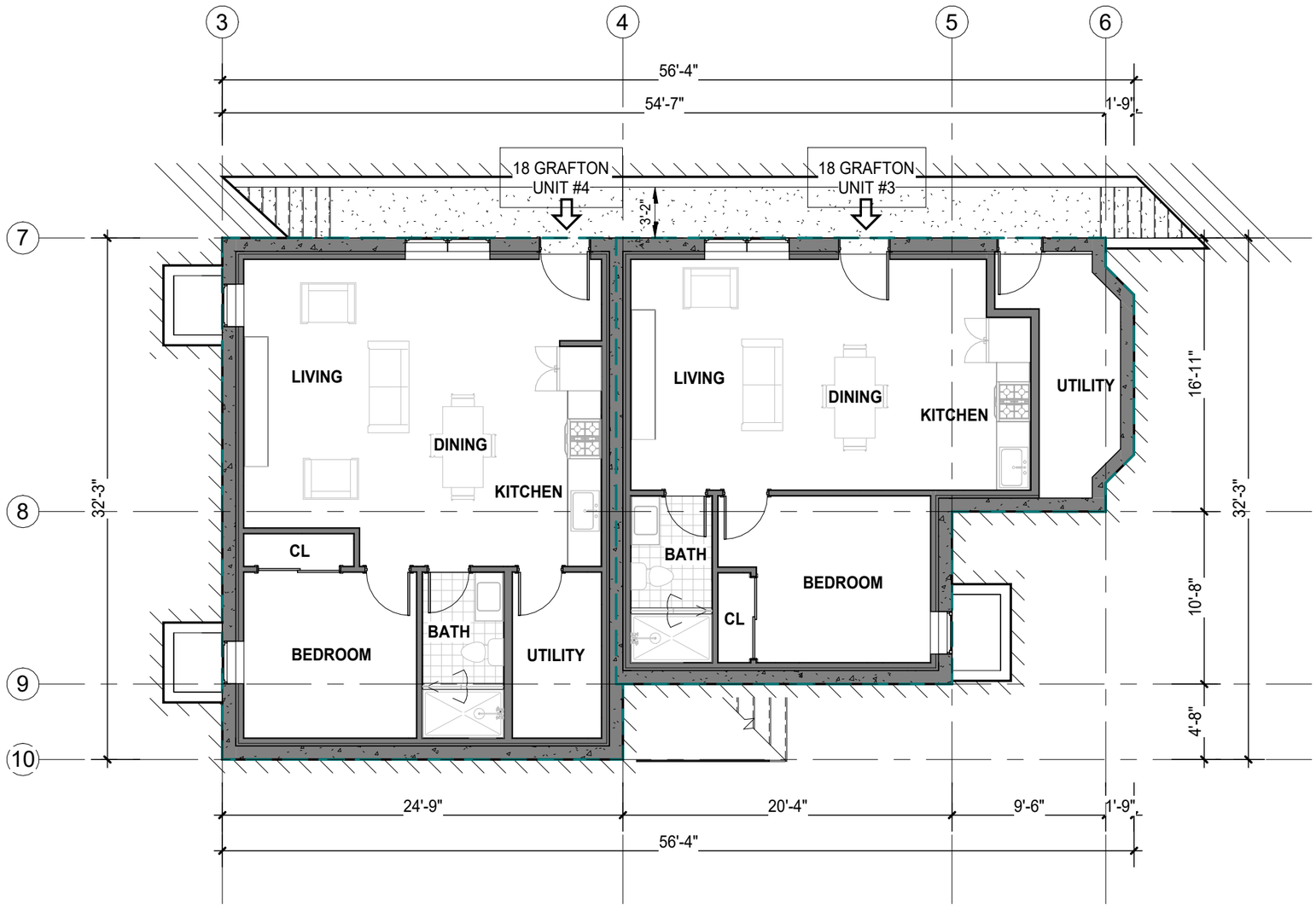

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BASEMENT FLOOR PLAN

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Scale 1/8" = 1'-0"

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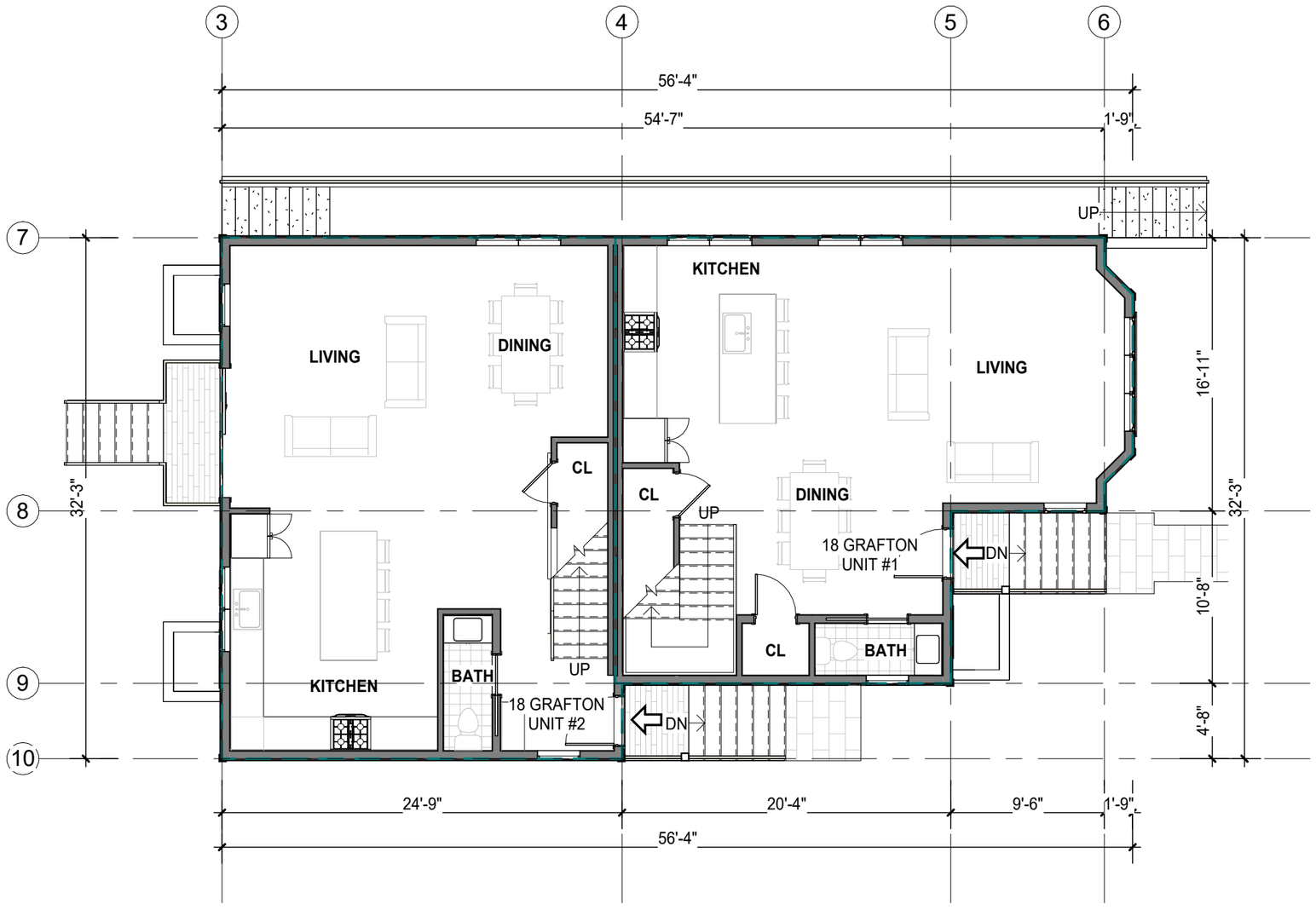

18 GRAFTON STREET

FIRST FLOOR PLAN

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Scale 1/8" = 1'-0"

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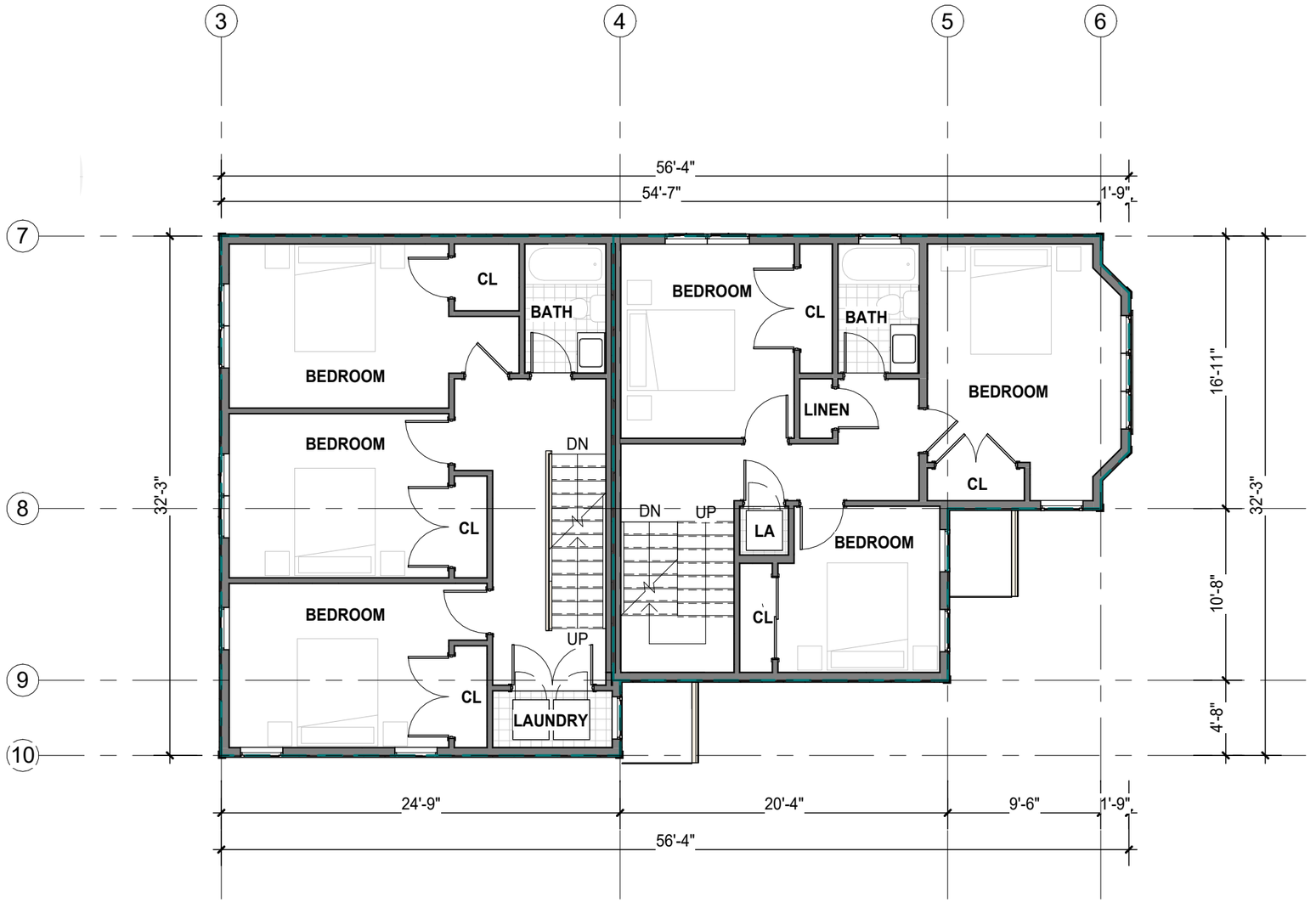

18 GRAFTON STREET

SECOND FLOOR PLAN

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Scale 1/8" = 1'-0"

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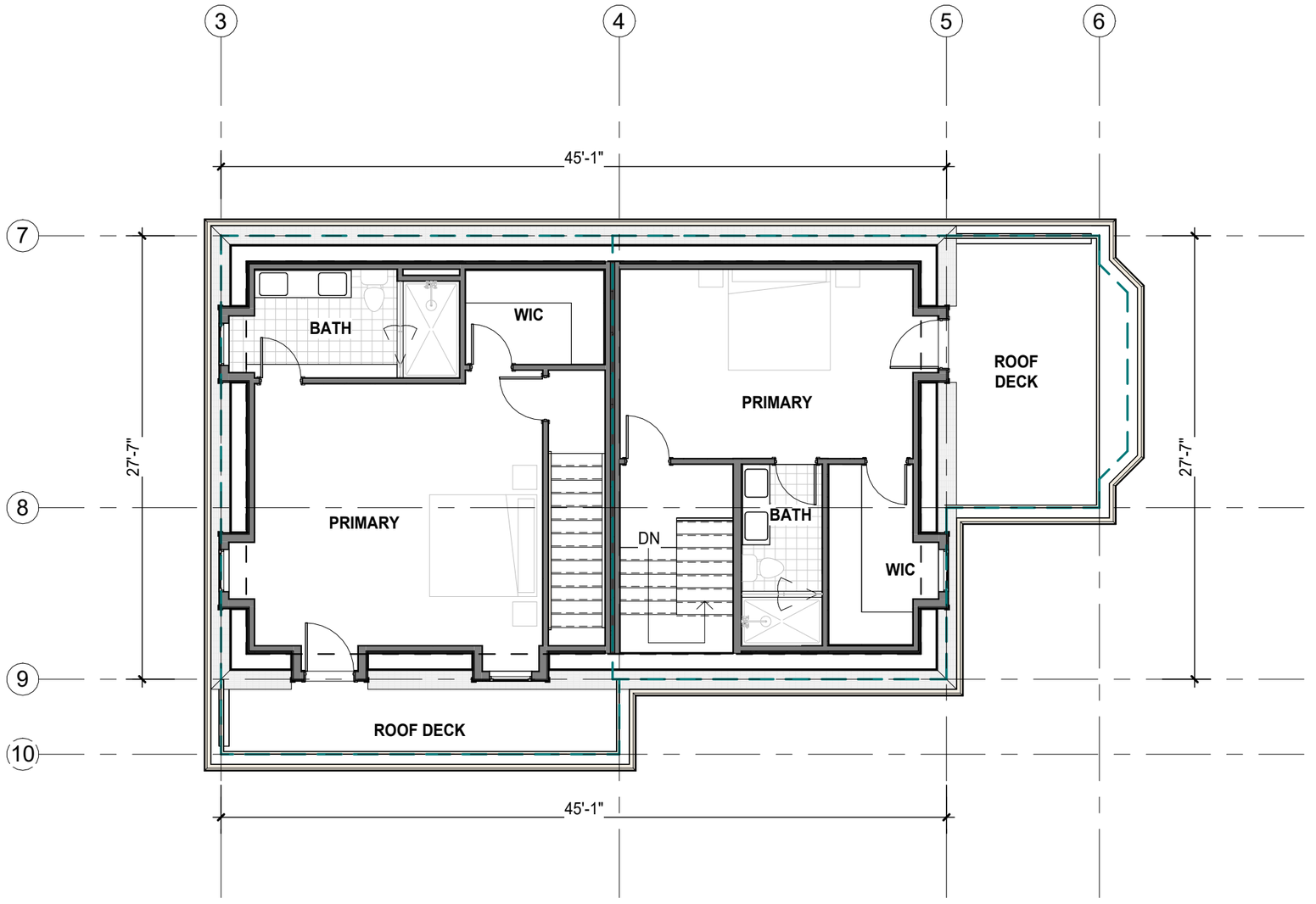

18 GRAFTON STREET

THIRD FLOOR PLAN

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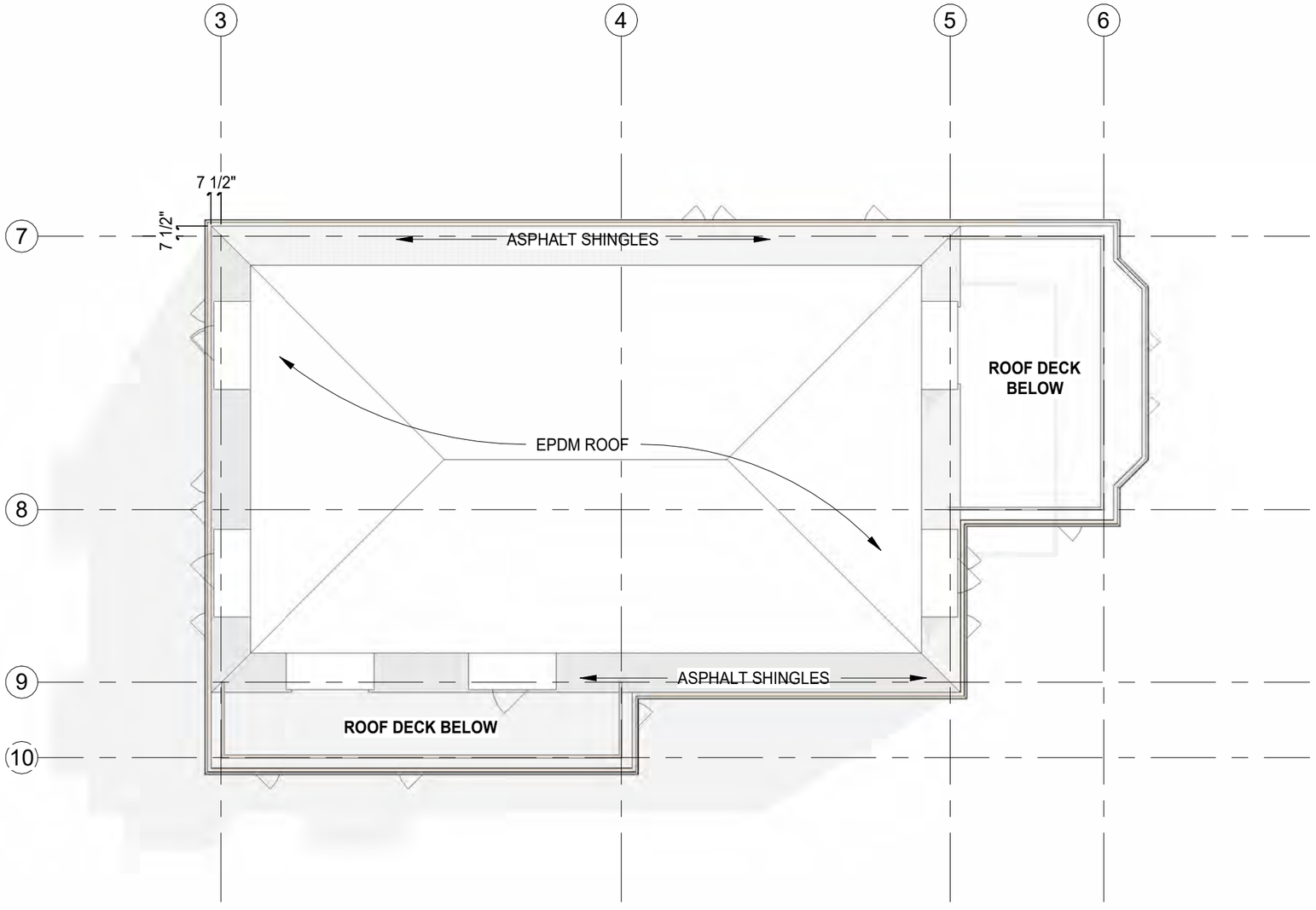
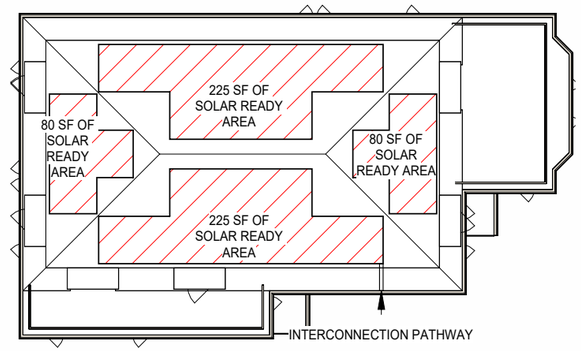


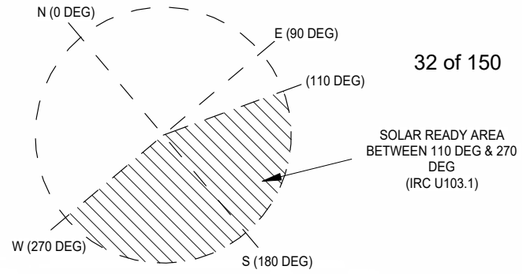
SOLAR READY ZONE AREA

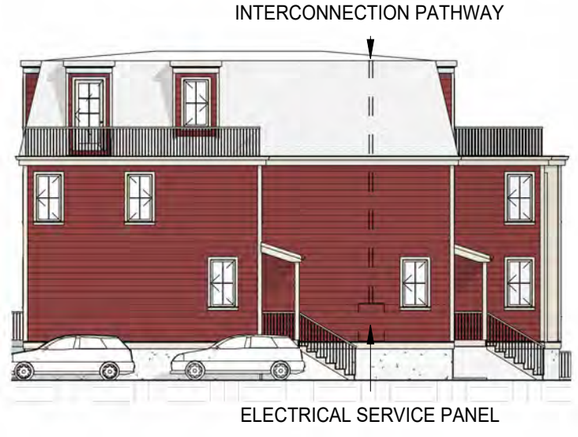
U103.3 SOLAR READY ZONE AREA. THE TOTAL SOLAR READY ZONE AREA SHALL BE NOT LESS THEN 300 SF EXCLUSIVE OF MANDATORY ACCESS OR SETBACK AREAS AS REQUIRED BY IFC. ****COMPLIANT****

THE SOLAR READY ZONE SHALL BE COMPOSED OF AREAS NOT LESS THAN 5 FEET IN WIDTH AND NOT LESS THAN 80 SF. ****COMPLIANT****

POSSIBLE **TOTAL SOLAR READY ZONE SF: 610 SF >= 300 SF REQUIRED (EACH UNIT) - U103.3**







18 GRAFTON STREET

ROOF PLAN

AUGUST 8 , 2025

Scale As indicated

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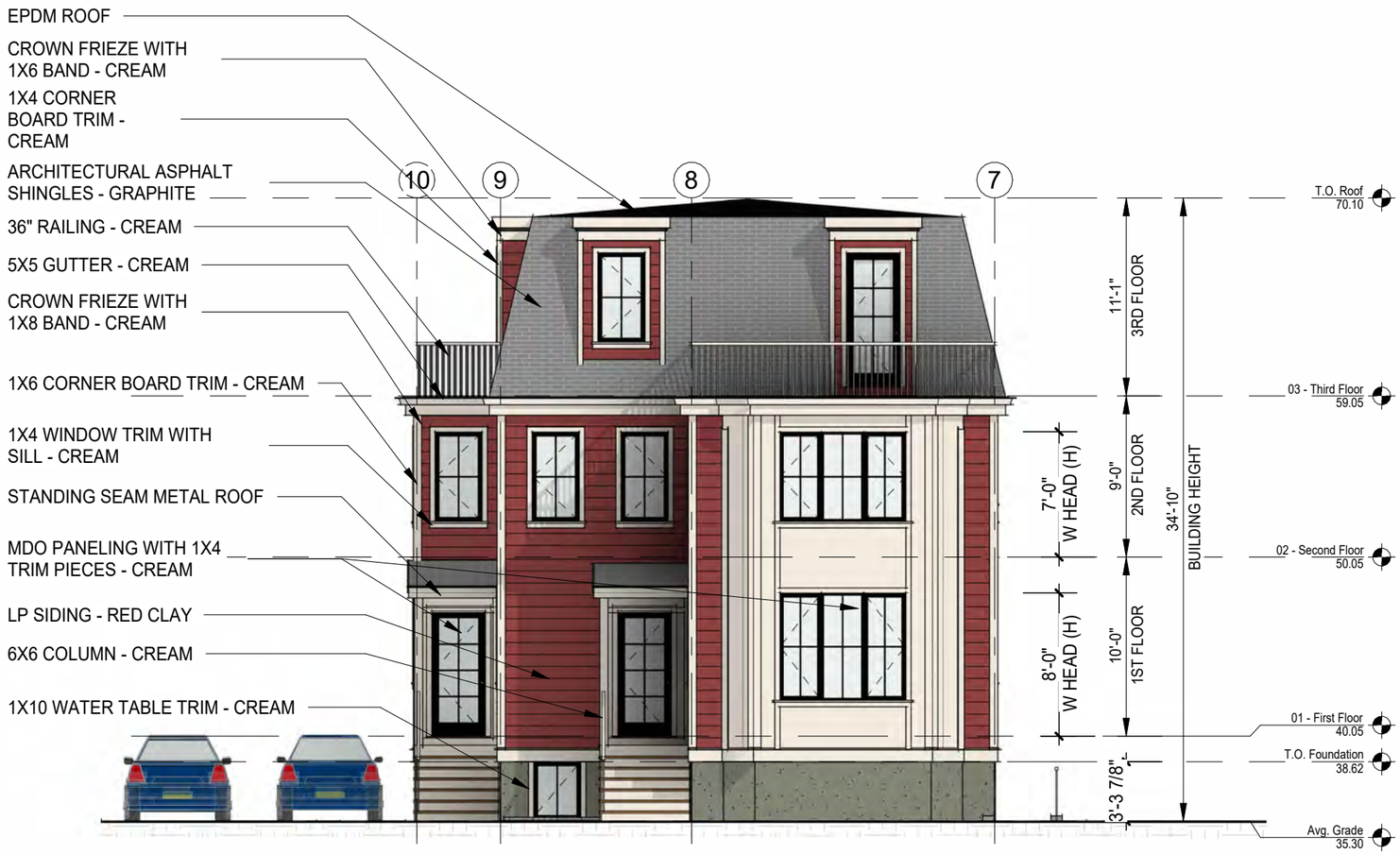

18 GRAFTON STREET

FRONT ELEVATION

AUGUST 8 , 2025

Scale 1/8" = 1'-0"

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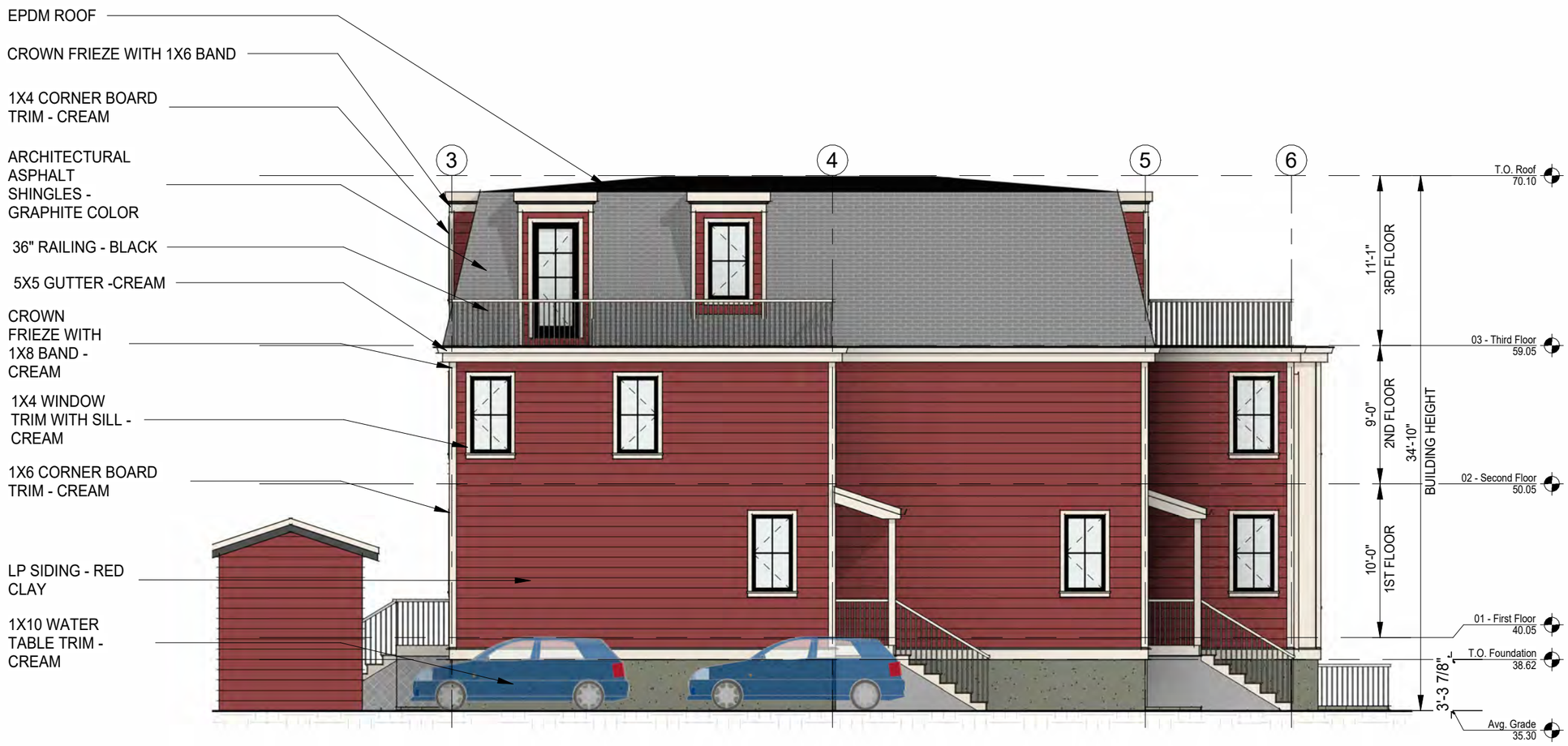

18 GRAFTON STREET

LEFT ELEVATION

AUGUST 8 , 2025

Scale 1/8" = 1'-0"

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18 GRAFTON STREET

RIGHT ELEVATION

AUGUST 8 , 2025

Scale 1/8" = 1'-0"

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18 GRAFTON STREET

REAR ELEVATION

AUGUST 8 , 2025

Scale 1/8" = 1'-0"

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18 GRAFTON STREET

FRONT ELEVATION RENDER

AUGUST 8, 2025

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August 11, 2025

Arlington Redevelopment Board
Arlington Town Hall
730 Massachusetts Avenue
Arlington, MA 02476

Re: 18 Grafton Street, Arlington, MA – LEED Certification

To Whom It May Concern:

This letter is to confirm that the proposed residential development at 18 Grafton Street, Arlington, MA is not being registered or pursued under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system for Building Design and Construction (BD+C) or any other LEED certification pathway.

While the project is not seeking LEED certification, it will comply fully with all applicable requirements of 780 CMR (Massachusetts State Building Code) and related state and local codes, including the Massachusetts Specialized Stretch Energy Code and applicable provisions of the MA Plumbing, Mechanical, and Fire Safety Codes. In addition, certain sustainable design elements, such as energy-efficient building envelope assemblies, code-compliant water-efficient plumbing fixtures, and low-emitting interior finishes, may be incorporated as part of standard design and construction practices.

The LEED Checklist is provided solely for informational purposes and to compare to a LEED certifiable project.

Sincerely,

Trevor O'Leary | Project Manager
MGD+ LLC
411 Lexington Street, Auburndale MA 02466
e. toleary@mgdplus.com
c. (781) 635-3456

LEED v4 for BD+C: New Construction and Major Renovation

Project Checklist

Project Name: 18 Grafton St, Arlington
Date: 08/11/25

Y	?	N			
1			Credit	Integrative Process	1

15	0	0	**Location and Transportation**		16
			Credit	LEED for Neighborhood Development Location	16
1			Credit	Sensitive Land Protection	1
2			Credit	High Priority Site	2
5			Credit	Surrounding Density and Diverse Uses	5
3			Credit	Access to Quality Transit	5
1			Credit	Bicycle Facilities	1
2			Credit	Reduced Parking Footprint	1
1			Credit	Green Vehicles	1

4	0	0	**Sustainable Sites**		10
Y			Prereq	Construction Activity Pollution Prevention	Required
			Credit	Site Assessment	1
			Credit	Site Development - Protect or Restore Habitat	2
			Credit	Open Space	1
2			Credit	Rainwater Management	3
1			Credit	Heat Island Reduction	2
1			Credit	Light Pollution Reduction	1

5	0	0	**Water Efficiency**		11
Y			Prereq	Outdoor Water Use Reduction	Required
Y			Prereq	Indoor Water Use Reduction	Required
Y			Prereq	Building-Level Water Metering	Required
2			Credit	Outdoor Water Use Reduction	2
3			Credit	Indoor Water Use Reduction	6
			Credit	Cooling Tower Water Use	2
			Credit	Water Metering	1

1	0	0	**Energy and Atmosphere**		33
Y			Prereq	Fundamental Commissioning and Verification	Required
Y			Prereq	Minimum Energy Performance	Required
Y			Prereq	Building-Level Energy Metering	Required
Y			Prereq	Fundamental Refrigerant Management	Required
			Credit	Enhanced Commissioning	6
			Credit	Optimize Energy Performance	18
			Credit	Advanced Energy Metering	1
			Credit	Demand Response	2
			Credit	Renewable Energy Production	3
1			Credit	Enhanced Refrigerant Management	1
			Credit	Green Power and Carbon Offsets	2

0	0	0	**Materials and Resources**		13
Y			Prereq	Storage and Collection of Recyclables	Required
Y			Prereq	Construction and Demolition Waste Management Planning	Required
			Credit	Building Life-Cycle Impact Reduction	5
			Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2
			Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
			Credit	Building Product Disclosure and Optimization - Material Ingredients	2
			Credit	Construction and Demolition Waste Management	2

14	0	0	**Indoor Environmental Quality**		16
Y			Prereq	Minimum Indoor Air Quality Performance	Required
Y			Prereq	Environmental Tobacco Smoke Control	Required
1			Credit	Enhanced Indoor Air Quality Strategies	2
3			Credit	Low-Emitting Materials	3
1			Credit	Construction Indoor Air Quality Management Plan	1
2			Credit	Indoor Air Quality Assessment	2
1			Credit	Thermal Comfort	1
1			Credit	Interior Lighting	2
3			Credit	Daylight	3
1			Credit	Quality Views	1
1			Credit	Acoustic Performance	1

0	0	0	**Innovation**		6
			Credit	Innovation	5
			Credit	LEED Accredited Professional	1

0	0	0	**Regional Priority**		4
			Credit	Regional Priority: Specific Credit	1
			Credit	Regional Priority: Specific Credit	1
			Credit	Regional Priority: Specific Credit	1
			Credit	Regional Priority: Specific Credit	1

40	0	0	**TOTALS**	Possible Points:	110

Certified: 40 to 49 points, **Silver:** 50 to 59 points, **Gold:** 60 to 79 points, **Platinum:** 80 to 110

LEGEND

SS	SEWER LINE
S	SEWER MANHOLE
W	WATER LINE
G	GAS LINE
	UTILITY POLE
GV	GAS VALVE
E	OVERHEAD ELECTRIC SERVICE
WV	WATER VALVE
	CATCH BASIN
	FENCE
205	CONTOUR LINE (MJR)
195	CONTOUR LINE (MNR)
X	SPOT GRADE
D	DRAIN MANHOLE
C	CLEANOUT/ INSPECTION PORT
	HYDRANT
	TREE
R	PROPOSED DOWNSPOUT
F.F.	FIRST FLOOR
B.F.	BASEMENT FLOOR
G.F.	GARAGE FLOOR
T.O.F.	TOP OF FOUNDATION
174	PROPOSED CONTOUR LINE

*** PER TITLE V, SEWER FLOW RESIDENTIAL (G.P.D)**
EXISTING = (4 BEDROOMS x 110 G.P.D.) =440 G.P.D
PROPOSED = (10 BEDROOMS x 110 G.P.D.) =1,100 G.P.D

THEREFORE, PROPOSED INCREASED FLOW =660 G.P.D

DRAINAGE AREA SUMMARY

EXISTING ROOF AREA (HOUSE & GARAGE)= 1,250.9 S.F.
EXISTING PAVED AREA (DRIVEWAY) = 588.5 S.F.
EXISTING IMPERVIOUS AREAS
(WALKWAYS/STEPS/LANDINGS/DECK) = 715.5 S.F.
EXISTING LANDSCAPE AREAS = 2,249.1 S.F.

PROPOSED ROOF AREA (HOUSE&SHED) = 1,619.8 S.F.
PROPOSED PAVED AREA (DRIVEWAY) = 878.3 S.F.
PROPOSED IMPERVIOUS AREAS
(WALKWAYS/STEPS/LANDINGS/) = 524.8 S.F.
PROPOSED LANDSCAPE= 1,781.1 S.F.

TOTAL EXISTING IMPERVIOUS AREA = 2,554.9 S.F.
TOTAL PROPOSED IMPERVIOUS AREA = 3,022.9 S.F.

TOTAL INCREASE IN IMPERVIOUS AREA = 468 S.F.

REFER TO ARCHITECTURAL PLANS FOR ALL ZONING RELATED INFORMATION

FIRST FLOOR AND FOUNDATION ELEVATIONS TO BE VERIFIED BY ARCHITECT PRIOR TO ANY CONCRETE BEING POURED

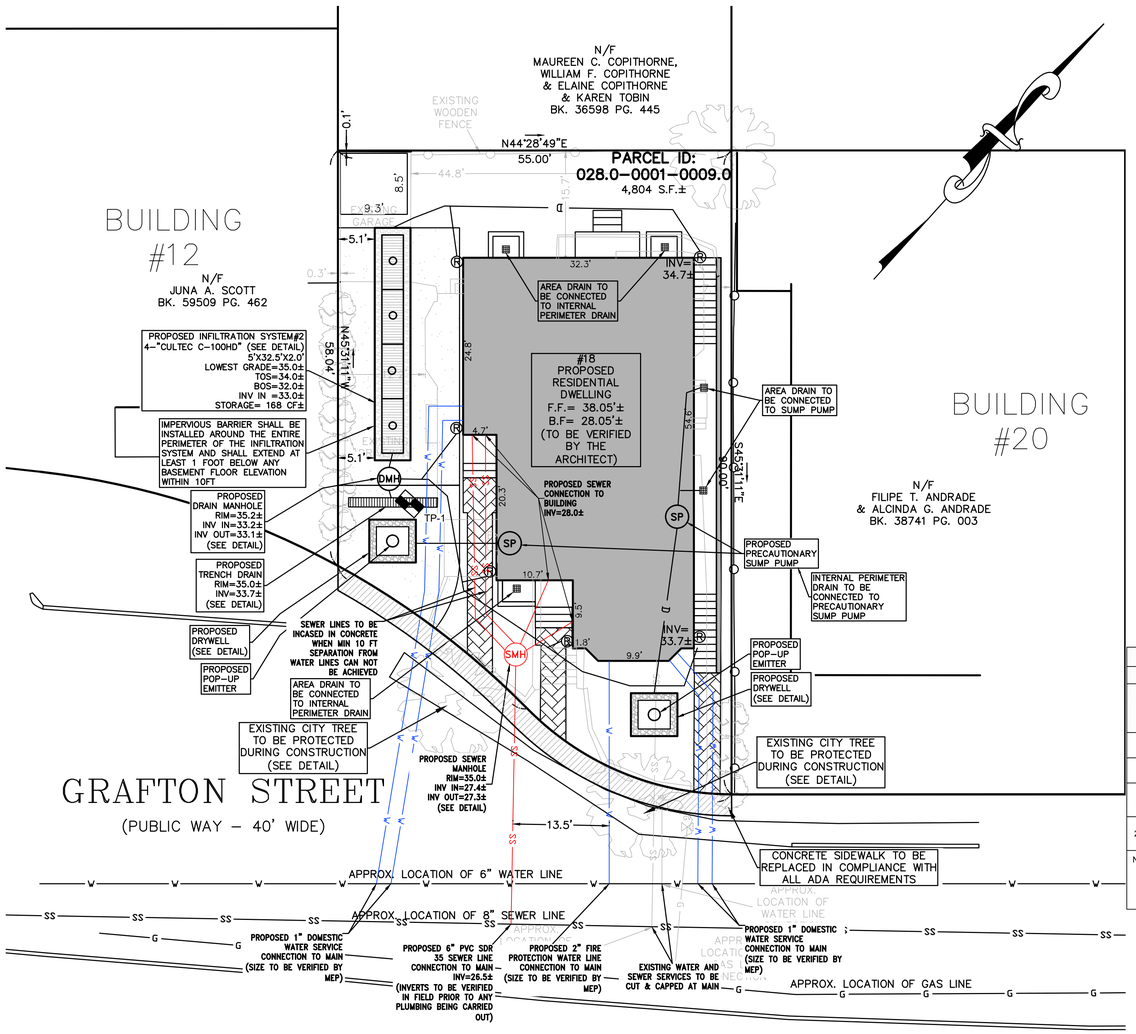
ALL SURFACE WATER RUNOFF SHALL BE DIRECTED AWAY FROM BUILDING FOUNDATION AND AWAY FROM NEIGHBORING PROPERTY

CONTRACTOR TO NOTIFY ENGINEER OF RECORD IF ANY GROUNDWATER IS FOUND DURING EXCAVATION/CONSTRUCTION

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.



GENERAL NOTES

1. THE CONTRACTOR SHALL REPORT TO THE OWNER AND ENGINEER OF ANY SIGNIFICANT VARIATIONS IN EXISTING SITE CONDITIONS FROM THOSE SHOWN ON THESE PLANS. ANY PROPOSED REVISIONS TO THE WORK, IF REQUIRED BY THESE SITE CONDITIONS, SHALL NOT BE UNDERTAKEN UNTIL REVIEWED AND APPROVED BY THE OWNER AND THE ENGINEER.
2. IN ORDER TO PROTECT THE PUBLIC SAFETY DURING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING AT ALL TIMES ALL NECESSARY SAFETY DEVICES AND PERSONNEL, WARNING LIGHTS, BARRICADES, AND POLICE OFFICERS.
3. ALL WORK SHALL CONFORM TO TOWN OF ARLINGTON GENERAL CONSTRUCTION STANDARDS.
4. THE CONTRACTOR SHALL REGULARLY INSPECT THE PERIMETER OF THE PROPERTY TO CLEAN UP AND REMOVE LOOSE CONSTRUCTION DEBRIS BEFORE IT LEAVES THE SITE. ALL DEMOLITION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE SITE TO A LEGAL DUMP SITE. ALL TRUCKS LEAVING THE SITE SHALL BE COVERED.
5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTITUTE EROSION CONTROL MEASURES ON AN AS NECESSARY BASIS, SUCH THAT EXCESSIVE SOIL EROSION DOES NOT OCCUR.
6. THE LOCATION OF UNDERGROUND UTILITIES AS REPRESENTED ON THESE PLANS IS BASED UPON PLANS AND INFORMATION PROVIDED BY THE RESPECTIVE UTILITY COMPANIES OR MUNICIPAL DEPARTMENTS SUPPLEMENTED BY FIELD IDENTIFICATION WHEREVER POSSIBLE. NO WARRANTY IS MADE AS TO THE ACCURACY OF THESE LOCATIONS OR THAT ALL UNDERGROUND UTILITIES ARE SHOWN. THE CONTRACTOR SHALL CONTRACT DIG SAFE AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION. DIG SAFE TELEPHONE NUMBER IS 1-800-322-4844.
7. THE CONTRACTOR SHALL VERIFY THE LOCATION, SIZE AND DEPTH OF EXISTING UTILITIES PRIOR TO TAPPING INTO, CROSSING OR EXTENDING THEM. IF THE NEW WORK POSES A CONFLICT WITH EXISTING UTILITIES, THE ENGINEER SHALL BE NOTIFIED PRIOR TO THE CONTRACTOR CONTINUING.
8. NO LEDGE, BOULDERS, OR OTHER UNYIELDING MATERIALS ARE TO BE LEFT WITHIN 6" OF THE WATER IN THE TRENCH, NOR ARE THEY TO BE USED FOR BACKFILL FOR THE FIRST 12" ABOVE THE PIPES.
9. PAVEMENT AREA SHALL BE PAVED TO A THICKNESS AS SHOWN ON THE PLANS MEASURED AFTER COMPACTION, WITH A BINDER COURSE AND TOP COURSE OF CLASS I BITUMINOUS CONCRETE PAVEMENT, TYPE I-1.
10. BASE MATERIAL SHALL BE CLEAN BANK RUN GRAVEL, CONFORMING TO M.D.P.W. M1.03.1, WITH NO STONES LARGER THAN THREE (3) INCHES IN DIAMETER AND SHALL BE PLACED AND ROLLED WITH AT LEAST A TEN TON ROLLER. THE SURFACES SHALL BE WET DURING ROLLING TO BIND THE MATERIAL. ALL STONES OF 4" DIAMETER OR LARGER SHALL BE REMOVED FROM THE SUB-BASE PRIOR TO PLACING BASE MATERIAL.
11. ALL EXISTING PAVING TO BE DISTURBED SHALL BE CUT ALONG A STRAIGHT LINE THROUGH ITS ENTIRE THICKNESS. BUTT THE NEW PAVING INTO THE EXISTING PAVEMENT TO REMAIN.
12. ANY PAVEMENT REMOVED FOR UTILITY TRENCH EXCAVATION OR OTHERWISE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH A PAVEMENT SECTION CONSISTING OF 1" WEAR COURSE OVERLYING A 1 1/2" BINDER COURSE OVERLYING A 8" COMPACTED GRAVEL BASE COURSE.
13. THE CONTRACTOR SHALL APPLY FOR A STREET OPENING AND UTILITY CONNECTION PERMITS AND SIDEWALK CROSSING PERMIT WITH THE TOWN OF ARLINGTON DPW.
14. CONTRACTOR TO ENSURE THAT ALL SURFACE WATER IS DIVERTED AWAY FROM BUILDING FOUNDATION DURING FINAL GRADING.
15. CONTRACTOR TO COORDINATE WITH THE ENGINEERING DIVISION TO PERFORM INSPECTIONS OF 1) BOTTOM OF EXCAVATION. 2) SYSTEM AFTER INSTALLED PRIOR TO BACKFILL. ENGINEERING DIVISION SHALL BE NOTIFIED AT A MINIMUM OF 24 HOURS PRIOR TO INSPECTIONS.
16. THE CONNECTION OF THE PROPOSED SUMP PUMP OR ANY FUTURE SUMP PUMP TO THE SUBSURFACE INFILTRATION SYSTEM IS PROHIBITED.
17. CONTRACTOR MUST CONTACT THE DESIGN ENGINEER AND ARLINGTON ENGINEERING DIVISION IF THE SOIL CONDITIONS FOUND DURING EXCAVATION DO NOT MATCH THE PLAN AND/OR TEST PIT INFORMATION.
18. THE TOWN OF ARLINGTON IS NOT A MEMBER OF DIGSAFE. UTILITY MARKOUTS MUST BE REQUESTED FROM THE TOWN OF ARLINGTON WATER AND SEWER DIVISION 781-316-3106 AT LEAST 72 HOURS PRIOR TO EXCAVATION.
19. CERTIFIED AS-BUILT PLANS OF THE DRAINAGE SYSTEM, INCLUDING ELEVATIONS, DIMENSIONS AND SWING TIES, AND IMPERVIOUS SURFACE AREA SHALL BE PROVIDED TO THE ARLINGTON ENGINEERING DIVISION FOLLOWING COMPLETION.

DEEP OBSERVATION HOLE LOG

DEEP OBSERVATION HOLE NUMBER: TP-1 — GROUND ELEVATION: 35.0±

Depth (in)	Horizon/ Layer	Matrix: Color-Moist	Redoximorphic Features			Texture (USDA)	Coarse Fragments (Percent by Volume)		Structure	Consistence (Moist)	Other
			Depth (in)	Color	Percent		Gravel	Cobbles & Stones			
0-3	BIT. CONC.	--	--	--	--	--	--	--	--	--	--
3-15	A	10YR 3/2	--	--	--	SANDY LOAM	<5	<5	MASSIVE	FRIABLE	--
15-26	Bw	10YR 6/8	--	--	--	SANDY LOAM	<5	<5	MASSIVE	FRIABLE	--
26-120	C	10YR 6/4	84"	--	--	SAND	10	<5	SINGLE GRAINED	LOOSE	COARSE

NOTES:
1. NO WEEPING OR STANDING WATER OBSERVED.
2. REDOX. OBSERVED @ 84". - ELEVATION: 28.0±
3. NO REFUSAL.
4. LOGGED BY EDMOND SPRUHAN SE 14235 ON 07/29/2025.

SPRUHAN ENGINEERING, P.C.
80 JEWETT ST, (SUITE 1)
NEWTON, MA 02458
Tel: 617-816-0722
Email:edmond@spruhaneng.com

COMMONWEALTH OF MASSACHUSETTS — EDMOND J. SPRUHAN — CIVIL — 35318 — REGISTERED PROFESSIONAL ENGINEER

18 GRAFTON STREET ARLINGTON MASSACHUSETTS

CIVIL PLAN

REVISION BLOCK

BY	DESCRIPTION	DATE

RESIDENTIAL SYSTEM APPLICATION SPECIFICATIONS

1.0 GENERAL

RESIDENTIAL STORMWATER MANAGEMENT IS THE PRACTICE OF CONTROLLING STORMWATER RUNOFF GENERATED BY RESIDENTIAL PROPERTIES. IMPERVIOUS SURFACES LIKE ROOFS, PATIOS, DRIVEWAYS, AND HEAVILY COMPACTED PERVIOUS SURFACES SUCH AS LAWNS PREVENT RAINFALL FROM BEING EVENLY DISTRIBUTED ACROSS THE GROUND AND EVENTUALLY ABSORBING INTO THE NATIVE SOIL. THESE IMPERVIOUS SURFACES INCREASE THE VOLUME OF RUNOFF AND THE RATE AT WHICH THE RUNOFF OCCURS. THE INCREASED VOLUME AND RUNOFF RATES CAN HAVE NEGATIVE IMPACTS DOWNSTREAM INCLUDING CHANNEL EROSION AND FLOODING OF ADJACENT PROPERTIES. ADDITIONALLY, RUNOFF FROM THESE SURFACES CAN CONTAIN SEDIMENT, NUTRIENTS, HEAVY METALS, AND OTHER POLLUTANTS THAT NEGATIVELY AFFECT THE DOWNSTREAM WATERCOURSES. A WELL-DESIGNED AND IMPLEMENTED RESIDENTIAL DRAINAGE SYSTEM WILL REDUCE THE OVERALL VOLUME OF DOWNSTREAM RUNOFF, REDUCE PEAK FLOWS FROM THE SITE AND WILL ACHIEVE WATER QUALITY CONTROLS THROUGH A VARIETY OF BEST MANAGEMENT PRACTICES.

1.1 APPLICATIONS

CULTEC CHAMBERS CAN BE USED IN THE FOLLOWING RESIDENTIAL APPLICATIONS:

· INFILTRATION OF STORMWATER RUNOFF
· DETENTION OF STORMWATER RUNOFF
· RAINWATER HARVESTING AND REUSE
· SUMP PUMP AND WATER SOFTENER DISCHARGE
· POOL BACKWASH AND DRAWDOWN DISCHARGE

CULTEC STORMFILTER T-80 WATER QUALITY UNIT SPECIFICATIONS

2.0 GENERAL

CULTEC STORMFILTER® T-80 MAY BE USED AS A STORMWATER FILTRATION UNIT, HOLDING TANK OR CATCH BASIN.

2.1 CHAMBER PARAMETERS

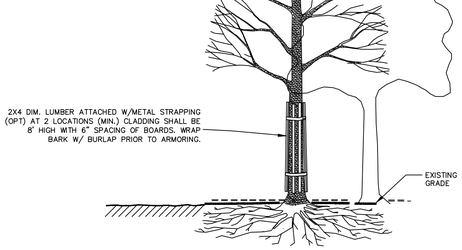
1. THE CHAMBERS SHALL BE MANUFACTURED BY CULTEC, OF BROOKFIELD, CT (203-775-4416 OR 1-800-428-5832).
2. THE CHAMBER SHALL BE FORMED OF BLACK POLYETHYLENE.
3. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC STORMFILTER® T-80 SHALL BE 26.38 INCHES (670 MM) TALL, 31 INCHES (787 MM) WIDE AND 42 INCHES (1067 MM) LONG.
4. THE CHAMBER SHALL HAVE A 12.5 INCH (318 MM) DIAMETER ACCESS OPENING LOCATED AT THE TOP OF THE UNIT.
5. MAXIMUM INLET OPENING ON THE CHAMBER END WALL IS 4 INCHES (100 MM).
6. THE NOMINAL STORAGE VOLUME OF THE STORMFILTER™ T-80 SHALL BE 90 GAL / UNIT (340.7 L / UNIT).
7. THE STORMFILTER® T-80 CHAMBER SHALL HAVE 5 CORRUGATIONS.
8. THE STORMFILTER® T-80 SHALL HAVE A MAXIMUM FILTERING CAPACITY OF 315.1 GPM (1193 L/MIN).
9. THE CHAMBER SHALL BE DESIGNED FOR NON-TRAFFIC APPLICATIONS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.
10. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY CONTROL AND ASSURANCE PROCEDURES.

2.2 FILTERING SPECIFICATIONS

1. THE FILTER REMOVES MORE THAN 70% OF THE TOTAL SUSPENDED SOLIDS TYPICALLY PRESENT IN STORMWATER RUNOFF.
2. CONTINUOUS FILTRATION CAPABILITY FOR CLEAN FILTERS IS RATED AT 0.70 CFS (0.02 M3/S).
3. TREATMENT CAPABILITY IS APPROXIMATELY 315.1 GPM (1193 L/MIN).

RESI 1.0

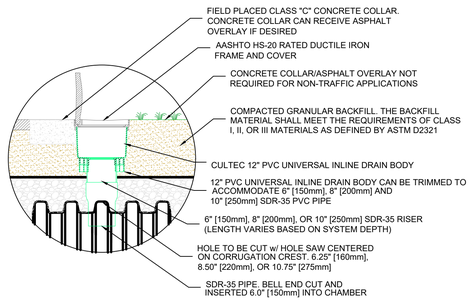
GENERAL NOTES



NOTES:

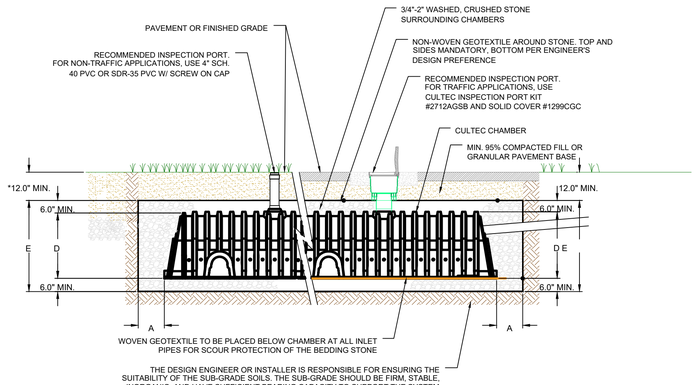
1. NO STORAGE OF EQUIPMENT OR STOCKPILING OF MATERIALS WITHIN DRIPLINE.
2. COORDINATE DIMENSIONS OF TREE PROTECTION WITH TREE WARDEN WHERE 6' IS NOT CONSTRUCTIBLE.
3. ROOTS MAY NOT BE LEFT UNCOVERED AT THE END OF DAY. COVER ROOTS WITH MULCH OR CLEAN LOAM.

TREE PROTECTION DETAIL
N.T.S.



RESI 5.0

CULTEC INSPECTION PORT - ZOOM DETAIL

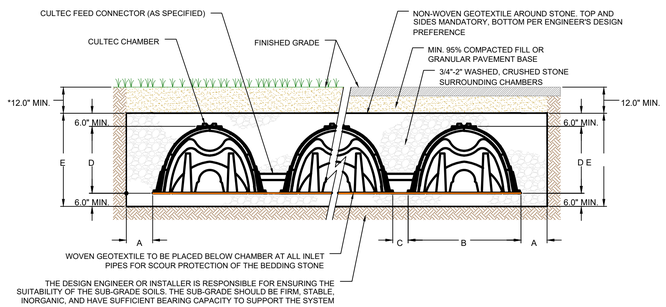


*FOR NON-TRAFFIC APPLICATIONS, THE DEPTH OF COVER ABOVE THE EMBEDMENT STONE LAYER MAY BE REDUCED TO 6.0"

**CULTEC RECOMMENDS THE USE OF THE STORMFILTER T-80 UPSTREAM OF ALL SYSTEM INLETS. THE STORMFILTER T-80 MUST BE LOCATED IN A NON-TRAFFIC AREA

RESI 2.0

TYPICAL SYSTEM PROFILE DETAIL



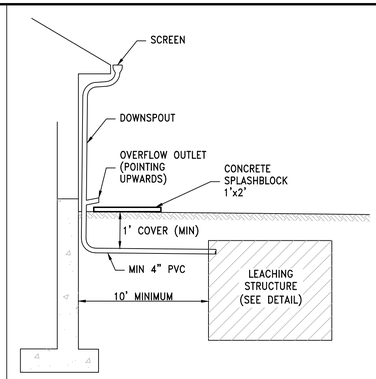
*FOR NON-TRAFFIC APPLICATIONS, THE DEPTH OF COVER ABOVE THE EMBEDMENT STONE LAYER MAY BE REDUCED TO 6.0"

SPECIFICATION TABLE

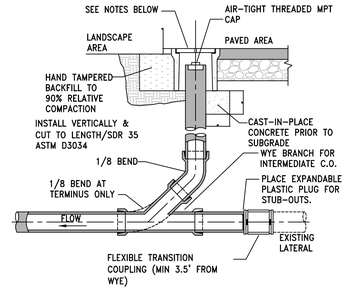
REF.	BARE CHAMBER VOLUME	CONTACTOR 100HD 1.87 FT3/FT 14.00 FT3/UNIT 105 GAL	RECHARGER 180HD 3.45 FT3/FT 21.81 FT3/UNIT 163 GAL	RECHARGER 330XLHD 7.46 FT3/FT 52.21FT3/UNIT 391 GAL
A	STONE BORDER (IN)	12	12	12
B	CHAMBER WIDTH (IN)	36	36	52
C	ROW SPACING (IN)	6	6	6
D	CHAMBER HEIGHT (IN)	12	20	30
E	EFFECTIVE DEPTH (IN)	24	32	42

SR 6.0

TYPICAL SYSTEM CROSS-SECTION DETAIL & SPECIFICATION TABLE



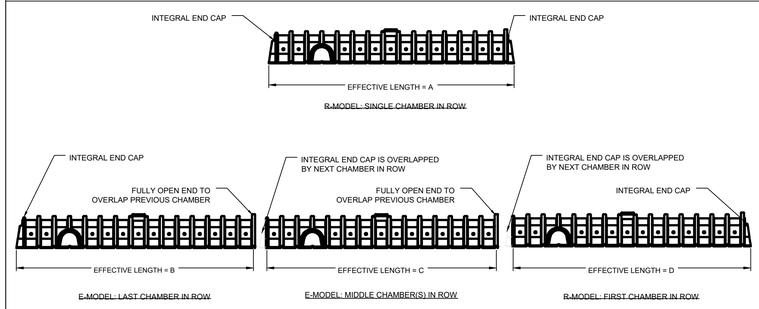
TYPICAL DOWNSPOUT WITH OVERFLOW DETAIL
N.T.S.



NOTES:

1. RECTANGULAR OR CIRCULAR BOXES ARE PERMITTED.
2. CONCRETE/FIBERLYTE LIDS ARE ACCEPTABLE IN NON-VEHICULAR AREAS. H-20 CAST IRON TRAFFIC LIDS AND BOXES IN VEHICULAR AREAS.
3. ALL CLEANOUT LIDS SHALL BE MARKED WITH AN "S" OR THE WORD "SEWER" FOR SANITARY SEWER CLEANOUTS
4. CLEANOUT PIPE SHALL BE THE SAME DIAMETER AS THE CONNECTED SITE PIPE.
5. TERMINATE C.O. AT CLOSEST JOINT TO SURFACE WITH TEMPORARY PLUG. AFTER ALL BACKFILL IS COMPLETE AND SUB-GRADE MADE IN AREAS TO BE PAVED, THE FINAL RISER PIPE AND BOX SHALL BE INSTALLED AS SHOWN.

CLEANOUT TO GRADE
NTS



R-MODEL: SINGLE CHAMBER IN ROW

E-MODEL: LAST CHAMBER IN ROW

E-MODEL: MIDDLE CHAMBER(S) IN ROW

R-MODEL: FIRST CHAMBER IN ROW

CHAMBER LENGTH TABLE

REF.	LOCATION	CONTACTOR 100HD	RECHARGER 180HD	RECHARGER 330XLHD
A	SINGLE CHAMBER	96"	88"	102"
B	FIRST CHAMBER OF ROW	93"	82"	93"
C	MIDDLE CHAMBER(S)	90"	76"	84"
D	LAST CHAMBER OF ROW	93"	82	93"

RESI 7.0

CHAMBER LENGTH DETAIL & LENGTH TABLE

SPRUHAN ENGINEERING, P.C.
80 JEWETT ST, (SUITE 1)
NEWTON, MA 02458
Tel: 617-816-0722
Email:edmond@spruhaneng.com

COMMONWEALTH OF MASSACHUSETTS
EDMOND SPRUHAN
CIVIL
No. 53337
REGISTERED PROFESSIONAL ENGINEER

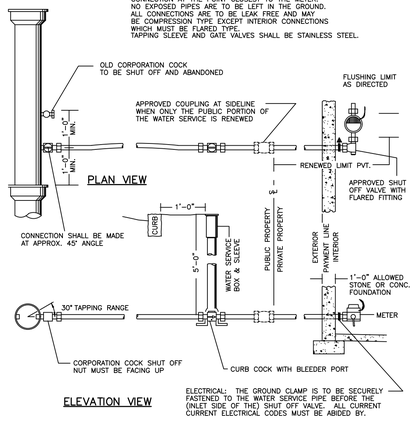
18 GRAFTON STREET
ARLINGTON
MASSACHUSETTS

CIVIL PLAN

REVISION BLOCK

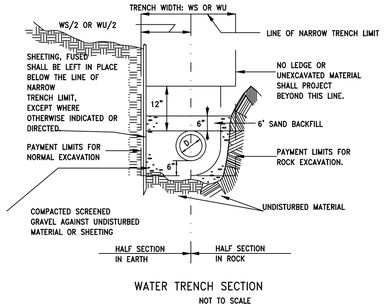
BY	DESCRIPTION	DATE

NOTES: ALL NEW PIPE IS TO BE FLUSHED JUST PRIOR TO FINAL CONNECTION AT THE POINT CLOSEST TO THE METER.
NO EXPOSED PIPES ARE TO BE LEFT IN THE GROUND.
ALL CONNECTIONS ARE TO BE LEAK FREE AND MAY BE COMPRESSION TYPE EXCEPT INTERIOR CONNECTIONS WHICH MUST BE FLARED TYPE.
TAPPING SLEEVE AND GATE VALVES SHALL BE STAINLESS STEEL.



TYPICAL WATER SERVICE CONFIGURATIONS
SCALE: NOT TO SCALE

TRENCH WIDTH WS OR WU		
DIAM. OF PIPE	WU UNSHEETED	WS SHEETED
12" AND SMALLER	3'-0"	4'-2"
15" AND LARGER	O.D.+20"	O.D.+36"

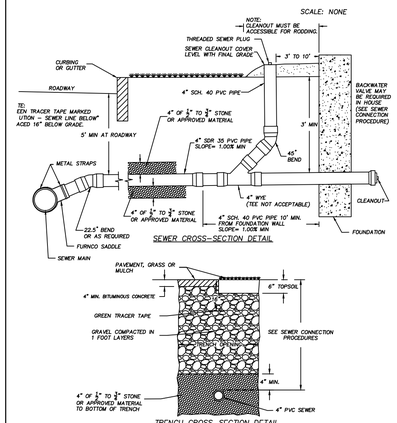


WATER TRENCH SECTION
NOT TO SCALE

TOWN OF WELLESLEY
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

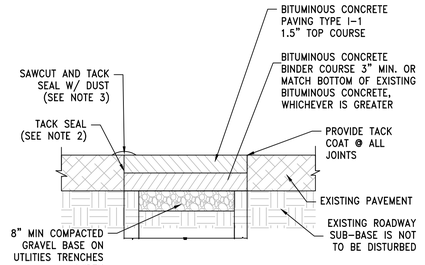
SEWER SERVICE CONNECTION WITH OUTSIDE CLEAN-OUT

SCALE: NONE



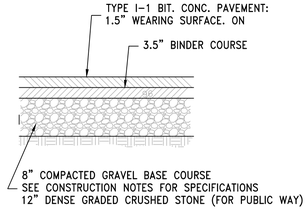
SEWER CROSS-SECTION DETAIL

TRENCH CROSS SECTION DETAIL



1. ALL INSTALLATION AND MATERIAL SPECIFICATIONS PER MASS. HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, 1988 AMENDED.
2. ALL EXPOSED BITUMINOUS CONCRETE IS TO BE TACKED PER MHD PRIOIR TO NEW BITOMINOUS CONCRETE INSTALLATION.
3. ALL EXPOSED JOINTS ARE TO BE SEALED WITH TACK AND STONE DUST.
4. ANY TOP COURSE APPLIED AT A WIDTH OF 6' WIDE OR GREATER IS TO BE PLACED BY MACHINE/BOX SPREADER WHEN AND AS DIRECTED BY THE TOWN OF BROOKLINE.
5. REMOVE AND DISPOSE ALL TEMPORARY PAVEMENT AS REQUIRED
5. RESTORE AND COMPACT SUB-BASE AS REQUIRED PRIOR TO PERMANENT TRENCH PAVEMENT.

PAVEMENT MATCH SAWCUT AND RESTORATION OVERLAY DETAIL
N.T.S.

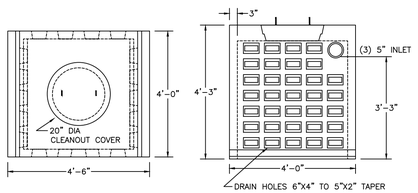


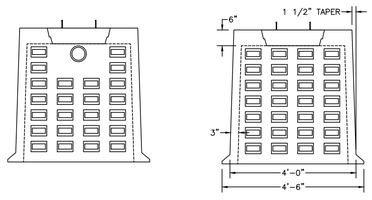
NOTE: PRIVATE PROPERTY ONLY

BITUMINOUS CONCRETE PAVEMENT
PROPOSED DRIVEWAY
N.T.S.

New England's Premier Precaster
800-696-7432 (SHEA)
www.sheaconcrete.com
BILLING ADDRESS: 87 HAVERHILL RD, AMESBURY MA 01913

DRY WELL
300 GALLON





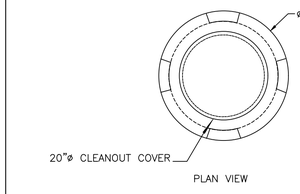
NOTES:
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR AASHTO HS-20 LOADING, 1 TO 3 FT COVER.

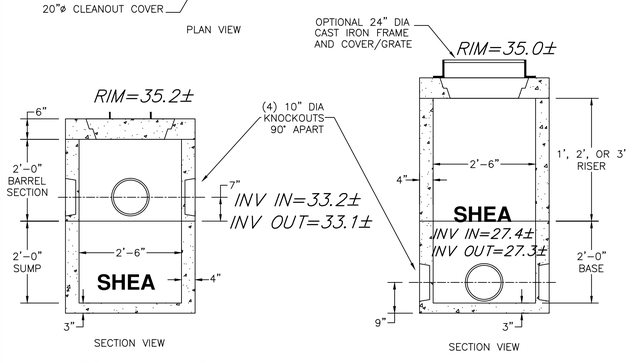
SHEA PRODUCT ID: DW4X4H	PREPARED FOR:	FILE NAME: DW4X4H.dwg	
WEIGHT (LBS): 2,560#	DRAWN BY: ARO	DATE: 03/01/2018	PAGE: F7

773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH
Specifications subject to change without notice

New England's Premier Precaster
800-696-7432 (SHEA)
www.sheaconcrete.com
BILLING ADDRESS: 87 HAVERHILL RD, AMESBURY MA 01913

MANHOLE 30" DIA H-20
MINI CATCH BASIN



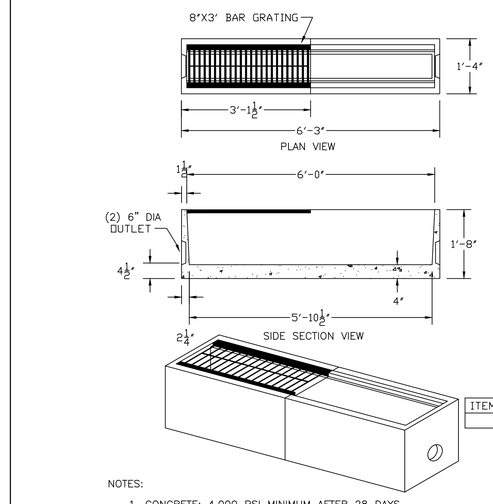


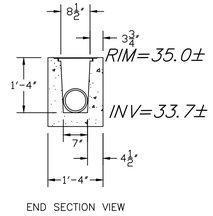
NOTES:
1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGNED FOR AASHTO HS-20 LOADING, 1-5 FEET COVER.

SECTIONS	ITEM NO	WEIGHT
1'-0" RISER	MC-MCB12RH	440#
2'-0" RISER	MC-MCB24RH	880#
3'-0" RISER	MC-MCB36RH	1320#
2'-0" BASE	MC-MCB24SH	1175#
2'-0" BARREL	MC-MCB24BSH	880#
38" COVER	MC-MCB38CH	585#

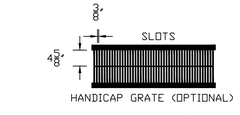
SHEA PRODUCT ID: SEE TABLE	PREPARED FOR:	FILE NAME: manh30inH20.dwg	
WEIGHT (LBS): SEE TABLE	DRAWN BY: ARO	DATE: 06/01/18	PAGE: G1

773 Salem Street-Wilmington, MA | 153 Cranberry Hwy-Rochester, MA | 87 Haverhill Road-Amesbury, MA | 160 Old Turnpike Rd-Nottingham, NH
Specifications subject to change without notice





ITEM NO.		WEIGHT
TD6	6' SECTION	1,315#
TD3	3' SECTION	711#



NOTES:
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. AVAILABLE IN 3' AND 6' SECTIONS.
3. AVAILABLE IN END, MIDDLE, OR CLOSED SECTIONS.
4. DESIGNED FOR AASHTO HS-20 LOADING.

TRENCH DRAIN 8" x 16"
N.T.S.

TRENCH DRAIN DETAIL
N.T.S.

SPRUHAN ENGINEERING, P.C.
80 JEWETT ST, (SUITE 1)
NEWTON, MA 02458
Tel: 617-816-0722
Email:edmond@spruhaneng.com

COMMONWEALTH OF MASSACHUSETTS
EDMOND SPRUHAN
CIVIL
23316
REGISTERED PROFESSIONAL ENGINEER

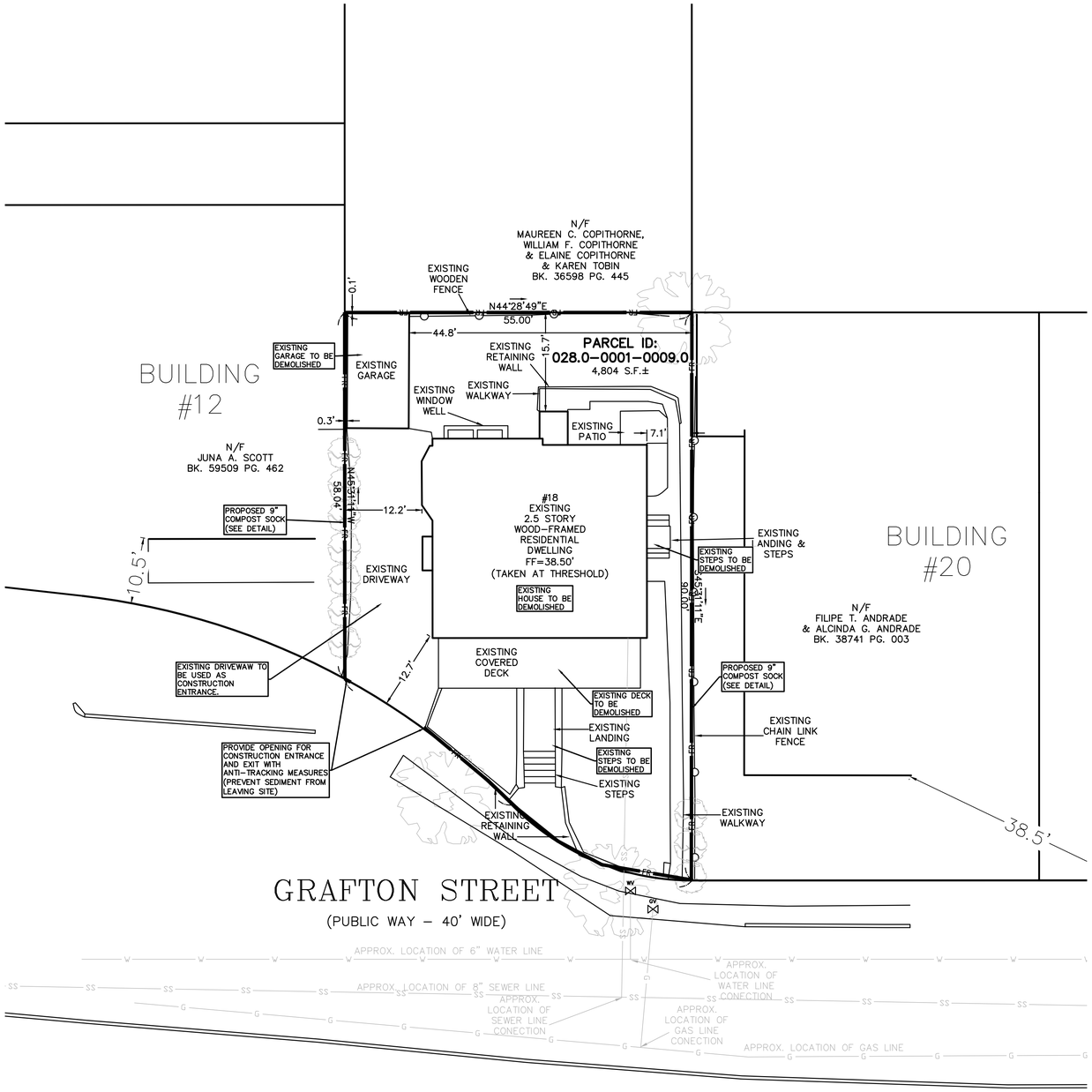
18 GRAFTON STREET
ARLINGTON
MASSACHUSETTS

CIVIL PLAN

REVISION BLOCK

BY	DESCRIPTION	DATE

ALL EROSION MITIGATION MEASURES SHALL BE IN PLACE PRIOR TO MAJOR CONSTRUCTION OR SOIL DISTURBANCE COMMENCING ON THE SITE.



GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)

1 inch = 10 ft.

EROSION CONTROL NOTES

1. THE EROSION CONTROL PLANS IN THIS SET SHALL BE REVIEWED AND IMPLEMENTED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR SHALL WORK WITH THE PROJECT'S ENGINEER THROUGHOUT CONSTRUCTION TO ENSURE THE SITE IS PROPERLY PROTECTED FROM POSSIBLE POLLUTANTS. THE ENGINEER HAS AUTHORIZATION TO ADD OR REMOVE BMP MEASURES THROUGHOUT CONSTRUCTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING SITE EROSION CONTROL AT ALL TIMES.
3. IT SHALL BE THE RESPONSIBILITY OF THE OWNER AND THE PERMITTEE TO ENSURE THAT EROSION DOES NOT OCCUR FROM ANY ACTIVITY DURING OR AFTER PROJECT CONSTRUCTION. ADDITIONAL MEASURES, BEYOND THOSE SPECIFIED, MAY BE REQUIRED BY THE PLANNING DIRECTOR AS DEEMED NECESSARY TO CONTROL ACCELERATED EROSION.
4. AT THE END OF EACH WORKDAY, AT THE END OF EACH WORKWEEK, THE CONTRACTOR SHALL IMPLEMENT ALL TEMPORARY MEASURES NECESSARY TO PREVENT EROSION AND SILTATION, UNTIL THE PROJECT HAS BEEN FINALIZED. THESE MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, DIRECT SEEDING OF THE AFFECTED AREAS, STRAW MULCHING, AND/OR INSTALLATION OF STRAW BALES DAMS/SILT FENCES.
5. DURING CONSTRUCTION, NO TURBID WATER SHALL BE PERMITTED TO LEAVE THE SITE. USE OF SILT AND GREASE TRAPS, FILTER BERMS, HAY BALES OR SILT FENCES SHALL BE USED TO PREVENT SUCH DISCHARGE.
6. ALL AREAS ON- AND OFF-SITE EXPOSED DURING CONSTRUCTION ACTIVITIES, IF NOT PERMANENTLY LANDSCAPED PER PLAN, SHALL BE PROTECTED BY MULCHING AND/OR SEEDING.
7. ALL EXCAVATED MATERIAL SHALL BE REMOVED TO AN APPROVED DISPOSAL SITE OR DISPOSED OF ON-SITE IN A MANNER THAT WILL NOT CAUSE EROSION.
8. ANY MATERIAL STOCKPILED, FOR LONGER THAN 14 DAYS, DURING CONSTRUCTION SHALL BE COVERED WITH PLASTIC.
9. UPON COMPLETION OF CONSTRUCTION, ALL REMAINING EXPOSED SOILS SHALL BE PERMANENTLY REVEGETATED.
10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ADDITIONAL MEASURES NECESSARY TO CONTROL SITE EROSION AND PREVENT SEDIMENT TRANSPORT OFF-SITE ARE IMPLEMENTED.
11. ALL SPILLS AND/OR LEAKS SHALL BE IMMEDIATELY CLEANED UP AND MITIGATED.

VEHICLE STORAGE AND MAINTENANCE

- MEASURES SHALL BE TAKEN TO PREVENT OIL, GREASE, OR FUEL TO LEAK IN TO THE GROUND, STORM DRAINS OR SURFACE WATERS.
- ALL EQUIPMENT OR VEHICLES, WHICH ARE TO BE FUELED, MAINTAINED AND STORED ONSITE SHALL BE IN A DESIGNATED AREA FITTED WITH APPROPRIATE BMPs.
- LEAKS SHALL BE IMMEDIATELY CLEANED AND LEAKED MATERIALS SHALL BE DISPOSED OF PROPERLY.

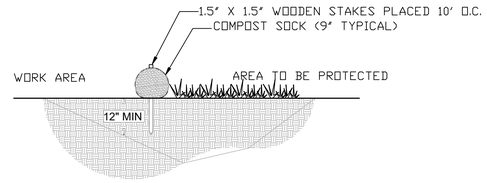
LANDSCAPE MATERIALS

- CONTAIN STOCKPILED MATERIALS SUCH AS MULCHES AND TOPSOIL WHEN THEY ARE NOT ACTIVELY BEING USED
- CONTAIN FERTILIZERS AND OTHER LANDSCAPE MATERIALS WHEN THEY ARE NOT ACTIVELY BEING USED.
- DISCONTINUE THE APPLICATION OF ANY ERODIBLE LANDSCAPE MATERIAL WITHIN 2 DAYS BEFORE A FORECASTED RAIN EVENT OR DURING PERIODS OF PRECIPITATION.
- APPLY ERODIBLE LANDSCAPE MATERIAL AT QUANTITIES AND APPLICATION RATES ACCORDING TO MANUFACTURE RECOMMENDATIONS OR BASED ON WRITTEN SPECIFICATIONS BY KNOWLEDGEABLE AND EXPERIENCED FIELD PERSONNEL.
- STACK ERODIBLE LANDSCAPE MATERIAL ON PALLETS AND COVERING OR STORING SUCH MATERIALS WHEN NOT BEING USED OR APPLIED.

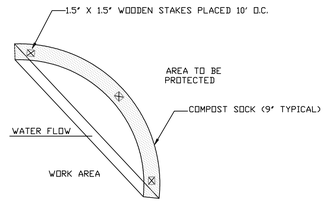
WASTE MANAGEMENT

- DISPOSAL OF ANY RINSE OR WASH WATERS OR MATERIALS ON IMPERVIOUS OR PERVIOUS SITE SURFACES OR INTO THE STORM DRAIN SYSTEM SHALL BE PREVENTED.
- SANITATION FACILITIES SHALL BE CONTAINED (E.G. PORTABLE TOILETS) TO PREVENT DISCHARGES OF POLLUTANTS TO THE STORM WATER DRAINAGE SYSTEM OR RECEIVING WATER, AND SHALL BE LOCATED A MINIMUM 20 FEET AWAY FROM AN INLET, STREET OR DRIVEWAY, STREAM, RIPARIAN AREA OR OTHER DRAINAGE FACILITY.
- SANITATION FACILITIES SHALL BE INSPECTED REGULARLY FOR LEAKS AND SPILLS AND CLEANED OR REPLACED AS NECESSARY.
- COVER WASTE DISPOSAL CONTAINERS AT THE END OF EVERY BUSINESS DAY AND DURING A RAIN EVENT.
- DISCHARGES FROM WASTE DISPOSAL CONTAINERS TO THE STORM WATER DRAINAGE SYSTEM OR RECEIVING WATER SHALL BE PREVENTED.
- STOCKPILED WASTE MATERIAL SHALL BE CONTAINED AND SECURELY PROTECTED FROM WIND AND RAIN AT ALL TIMES UNLESS ACTIVELY BEING USED.

  PROCEDURES THAT EFFECTIVELY ADDRESS HAZARDOUS AND NON-HAZARDOUS SPILLS SHALL BE IMPLEMENTED.EQUIPMENT AND MATERIALS FOR CLEANUP OF SPILLS SHALL BE AVAILABLE ON SITE AND THAT SPILLS AND LEAKS SHALL BE CLEANED UP IMMEDIATELY AND DISPOSED OF PROPERLY; AND
- CONCRETE WASHOUT AREAS AND OTHER WASHOUT AREAS THAT MAY CONTAIN ADDITIONAL POLLUTANTS SHALL BE CONTAINED SO THERE IS NO DISCHARGE INTO THE UNDERLYING SOIL AND ONTO THE SURROUNDING AREAS.



SECTION NTS



PLAN NTS

NOTES:
1. ALL MATERIAL TO MEET SPECIFICATIONS.
2. COMPOST SOCKS FILL TO MEET APPLICATION REQUIREMENTS.
3. FILTER MEDIA TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

COMPOST SOCK DEETAIL

NTS

COMPOST SOCK INSTALLATION

1. LOCATE/MARK ANY UTILITIES.
2. CHECK ALL PERMITS.
3. OBTAIN COMPOST MEETING SPECIFICATIONS.
4. OBTAIN FILTER SOCK NETTING.
5. FILL FILTER SOCK NETTING WITH COMPOST.
6. MARK OUT AREA FOR FILTER SOCK; ORIENT LENGTH OF SOCK PARALLEL TO THE SLOPE SO THAT THE RUNOFF ENTERS AS SHEET FLOW.
7. IN HIGH-FLOW OR STEEP-SLOPE AREAS, ORIENT A SECOND SOCK PARALLEL TO THE FIRST TO DISSIPATE FLOWS.
8. LAY FILTER SOCK NETTING OUT AS PLANNED.
9. FILL FILTER SOCK WITH COMPOST.
10. STAKE FILTER SOCK EVERY 10 FT. STAKES SHOULD BE DRIVEN THROUGH THE CENTER OF THE SOCK, AND 1 FT INTO THE GROUND.
11. IF SOCK NETTING MUST BE JOINED, FIT BEGINNING OF THE NEW SOCK OVER THE END OF THE OLD SOCK, OVERLAPPING BY 1-2 ft. FILL WITH COMPOST; THEN STAKE THE JOIN.

TYPICAL MAINTENANCE SCHEDULE

INSPECT FILTER SOCKS PERIODICALLY, AND ESPECIALLY AFTER LARGE STORM EVENTS. ENSURE THAT THE FILTER SOCK IS INTACT, AND THATTHE AREA UPSTREAM HAS NOT FILLED WITH SEDIMENT. IF THE UPSTREAM AREA HAS FILLED WITH SEDIMENT, OR IF THE FILTER SOCK HAS BEEN OVERTOPPED, INSTALL ADDITIONAL FILTER SOCKS FURTHER UPSTREAM. SEDIMENT BEHIND THE SOCK SHOULD BE REMOVED WHEN THE DEPTH OF THE SEDIMENT REACHES 3.25-IN. FOR AN 8-IN. SOCK, 4.75-IN. FOR A 12-IN. SOCK AND 7.25-IN. FOR AN 18-IN. SOCK. FOR SOCKS WITH GREATER DIAMETERS, REMOVE SEDIMENT BEHIND THE SOCK WHEN THE ACCUMULATED SEDIMENT DEPTH REACHES 40 PERCENT OF THE DESIGN DIAMETER OF THE SOCK.

CONSTRUCTION MATERIALS

- ALL LOOSE STOCKPILED CONSTRUCTION MATERIALS THAT ARE NOT ACTIVELY BEING USED (I.E. SOIL, SPOILS, AGGREGATE, FLY-ASH, STUCCO, HYDRATED LIME, ETC.) SHALL BE COVERED AND BERMED.
- ALL CHEMICALS SHALL BE STORED IN WATERTIGHT CONTAINERS (WITH APPROPRIATE SECONDARY CONTAINMENT TO PREVENT ANY SPILLAGE OR LEAKAGE) OR IN A STORAGE SHED (COMPLETELY ENCLOSED).
- EXPOSURE OF CONSTRUCTION MATERIALS TO PRECIPITATION SHALL BE MINIMIZED. THIS DOES NOT INCLUDE MATERIALS AND EQUIPMENT THAT ARE DESIGNED TO BE OUTDOORS AND EXPOSED TO ENVIRONMENTAL CONDITIONS (I.E. POLES, EQUIPMENT PADS, CABINETS, CONDUCTORS, INSULATORS, BRICKS, ETC.).
- BEST MANAGEMENT PRACTICES TO PREVENT THE OFF-SITE TRACKING OF LOOSE CONSTRUCTION AND LANDSCAPE MATERIALS SHALL BE IMPLEMENTED.

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COMMONWEALTH OF MASSACHUSETTS
EDMOND SPRUHAN
CIVIL
No. 53316
REGISTERED PROFESSIONAL ENGINEER

18 GRAFTON STREET
ARLINGTON
MASSACHUSETTS

REVISION BLOCK

BY	DESCRIPTION	DATE

Sustainable Building and Site Design Elements

Project: 18 Grafton Street, Arlington, MA
Use: New 4-Unit Residential Building
Conditioned Space: 5,590 SF
Prepared By: MGD+ LLC / Derek Rubinoff

Solar Energy Systems Assessment (Arlington Zoning Bylaw §6.4)

The proposed 4-unit residential development will comply with the solar energy system assessment requirements outlined in Section 6.4 of the Arlington Zoning Bylaw. The building includes a flat roof structure above the third floor, with a southeast-facing orientation and good solar access for the majority of the day.

- The project will provide over 600 SF of contiguous, unobstructed solar-ready roof area, exceeding the minimum required by code.
- Roof penetrations (e.g., vents and mechanical equipment) will be grouped to maintain a clear solar zone.
- Some partial shading is anticipated from mature trees to the northwest and south, but the primary solar window remains largely unobstructed.
- The project will not seek an exemption under §6.4.2 and will instead include full solar-ready infrastructure per 225 CMR 23.4.2 and 225 CMR 24.06, including:
    - Structural roof design to support future PV systems
    - Conduit installed from roof to main electrical panel
    - Reserved electrical panel space and labeled breaker for PV connection

Energy Code Compliance

The project will comply with the Massachusetts Specialized Stretch Energy Code (225 CMR 23), adopted by the Town of Arlington. As a new construction, all-electric residential building under 12,000 SF of conditioned space, the project will utilize the Energy Rating Index (ERI) compliance path under 225 CMR 23.4.1.

ARCHITECTURAL
HABITAT
DESIGN
CONSULTATION
411 LEXINGTON STREET NEWTON, MA 02466
(O) 857-322-5MGD (5643)
MGDPLUS.COM

- The building will achieve a Home Energy Rating System (HERS) Index score of 45 or lower, as required for all-electric new construction.

- A certified HERS rater will verify compliance through energy modeling, inspections, and blower door testing.

Energy Efficiency Measures:
The following strategies will be implemented to meet or exceed the performance requirements of the 2021 IECC, 780 CMR, and 225 CMR 23:

- **Code-compliant envelope insulation**: All above- and below-grade assemblies will meet or exceed prescribed R-values and U-factors for Climate Zone 5A.

- **High-efficiency or low U-value windows**: Fenestration will comply with or exceed energy performance criteria for U-factor and SHGC.

- **Ducted electric heat pump systems for HVAC**: High-efficiency air-source heat pumps with sealed ductwork will serve all units.

- **Heat pump water heaters**: Domestic hot water will be provided by ENERGY STAR-certified electric heat pump systems.

- **Balanced ventilation via HRV or ERV per ASHRAE 62.2**: Each dwelling unit will have continuous mechanical ventilation with energy recovery to ensure indoor air quality and energy performance.

- **ENERGY STAR lighting and appliances**: All lighting and major appliances will be high-efficiency models meeting ENERGY STAR certification.

- **Air-sealing to achieve ≤ 3.0 ACH50**: Blower door testing will confirm air leakage meets or exceeds the maximum rate allowed under IECC/MA amendments.

- **Full compliance with 2021 IECC and 780 CMR amendments**: All relevant prescriptive and performance measures for low-rise multifamily buildings will be satisfied.

Electric Vehicle Charging Infrastructure

The building will comply with EV-readiness requirements of 225 CMR 23.4.3.2 and local Arlington preferences for electrification:

- One EV-ready parking space per dwelling unit (4 total) will be provided.
- Each EV-ready space will include:
    - A 40-amp, 208/240V dedicated circuit
    - An installed junction box or outlet in proximity to the parking space
    - Proper labeling and reserved breaker space in the electrical panel
- Electrical service will be sized to support future Level 2 charging equipment.

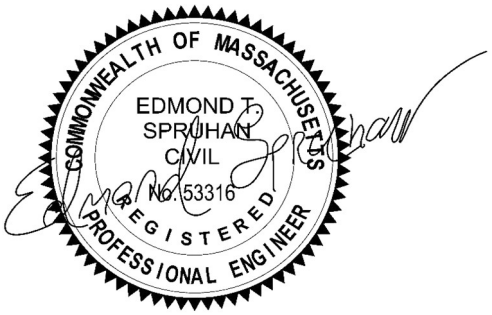
LEED Checklist

This project will not pursue LEED certification, nor submit a LEED checklist. However, it will fully comply with the minimum and performance-based requirements of the Massachusetts Specialized Stretch Code, 2021 IECC, and 780 CMR, and has been designed to support long-term sustainability and electrification consistent with state and municipal goals.

SPRUHAN ENGINEERING, P.C.

STORMWATER REPORT

18 GRAFTON ST, ARLINGTON, MA



Prepared By: Spruhan Engineering, P.C.
July 21, 2025.

1.0 Introduction **3**

2.0 Existing Conditions **3**

2.1 Existing Topography and Drainage Infrastructure **3**

3.0 Proposed Conditions **4**

3.1 Project Description **4**

3.2 Storm Water Runoff **4**

3.3 Infiltration system **4**

4.0 Soil Information **5**

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Appendix B – Soils Information **67**

1.0 Introduction

Spruhan Engineering, P.C. has prepared this Stormwater Report for the proposed development at 18 Grafton St, Arlington, Massachusetts.

The project includes a 4-Unit residential building a paved driveway, walkways, steps, landings, and landscaped areas. This report aims to demonstrate that the proposed development will not increase the flow rate or runoff from the site. This is accomplished through the installation of a subsurface infiltration system.

2.0 Existing Conditions

The property at 18 Grafton St, Arlington, Massachusetts, is surrounded by residential dwellings at the rear and sides. It is situated on Grafton Street, between Massachusetts Ave and Raleigh St. The existing site features a roof area of 1,251 S.F., a paved driveway of 589 S.F., additional impervious areas totaling 715 S.F., and a landscaped area covering 2,249S.F.

2.1 Existing Topography and Drainage Infrastructure.

In general, the property slopes from Rear from the rear (North) to the front (South) at approximately 2%. Since no drainage system is currently in place, all stormwater flows across the surface at grade toward Grafton St.

3.0 Proposed Conditions

3.1 Project Description

The proposed development includes a 4-Unit Residential dwelling, a paved driveway, pavers walkways, steps with landings, and landscaped areas. The planned roof area will cover 1,620 S.F., while the paved driveway will span 878 S.F. The unconnected impervious areas will total 525 S.F., The remaining landscaped portion will cover 1,781 S.F.

3.2 Storm Water Runoff

HydroCAD was used to model the site for the existing and proposed conditions for the 2-year, 10-year, 25-year, and 100-year type III storm events based on Atlas-14 Rain information for Middlesex County Central Area. HydroCAD calculations can be seen in Appendix A. The following table shows a summary of the existing and proposed conditions on the site as they relate to flowrate and volume of storm water runoff for each of the storm events.

3.3 Infiltration system

An infiltration system has been proposed to manage runoff from the new roof and the proposed driveway. The system consists of 4 Cultec C-100HD units with a 1-foot crushed stone base.

The table below provides a summary of the results obtained from HydroCAD calculations for Runoff flow rate volume and flow rate under both pre & post-construction conditions. For a detailed breakdown of the calculations, please refer to Appendix A of this report.

Summary Table (HydroCAD results)

Storm Event	Runoff rate		Volume of runoff	
	Existing (CFS)	Proposed (CFS)	Existing (CF)	Proposed (CF)
2-Year	0.11	0.00	348	37
10-Year	0.28	0.27	863	305
25-Year	0.41	0.39	1,235	519
100-Year	0.62	0.57	1,843	889

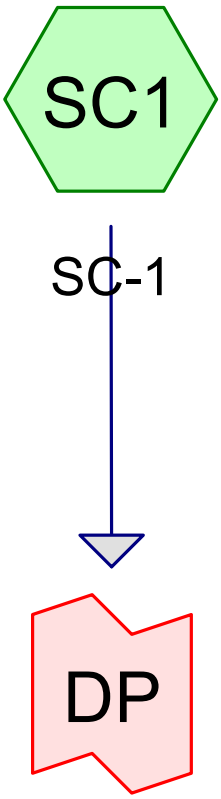
4.0 Soil Information

The NRCS Web Soil Survey shows the division of two Map Units inside our area of interest. These are listed next and the percentages of Area of Interest in the Map unit Legend Table:

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
104D	Hollis-Rock outcrop-Charlton complex, 15 to 35 percent slopes	0.2	23.9%
630C	Charlton-Hollis-Urban land complex, 3 to 15 percent slopes	0.7	76.1%
Totals for Area of Interest		**0.9**	**100.0%**

Soil type 602 (Urban Land) does not have an assigned Hydrologic Soil Group (HSG). However, a test pit was conducted on the lot, and sand was encountered, which qualifies as **HSG A**. These characteristics were used in the HydroCAD model to represent site conditions. Refer to the information provided in Appendix B. Also, the test pit results can be found on sheet 1 of the civil plans provided with this report.

Appendix A – HydroCAD Calculations



DISCHARGE POINT
(STREET)

EXISTING CONDITIONS

Subcat Reach Pond Link

Routing Diagram for EXISTING
Prepared by SPRUHAN ENGINEERING P.C., Printed 7/18/2025
HydroCAD® 10.00-25 s/n 09067 © 2019 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
2,249	39	>75% Grass cover, Good, HSG A (SC1)
716	98	Existing Walway, steps & Landings (SC1)
589	98	Existing paved driveway (SC1)
1,251	98	Roof (Existing house & Garage) (SC1)
4,805	**70**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
2,249	HSG A	SC1
0	HSG B	
0	HSG C	
0	HSG D	
2,556	Other	SC1
4,805		**TOTAL AREA**

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment SC1: SC-1 Runoff Area=4,805 sf 53.19% Impervious Runoff Depth=0.87"
Tc=5.0 min CN=70 Runoff=0.11 cfs 348 cf

Link DP: DISCHARGE POINT (STREET) Inflow=0.11 cfs 348 cf
Primary=0.11 cfs 348 cf

Total Runoff Area = 4,805 sf Runoff Volume = 348 cf Average Runoff Depth = 0.87"
46.81% Pervious = 2,249 sf 53.19% Impervious = 2,556 sf

Summary for Subcatchment SC1: SC-1

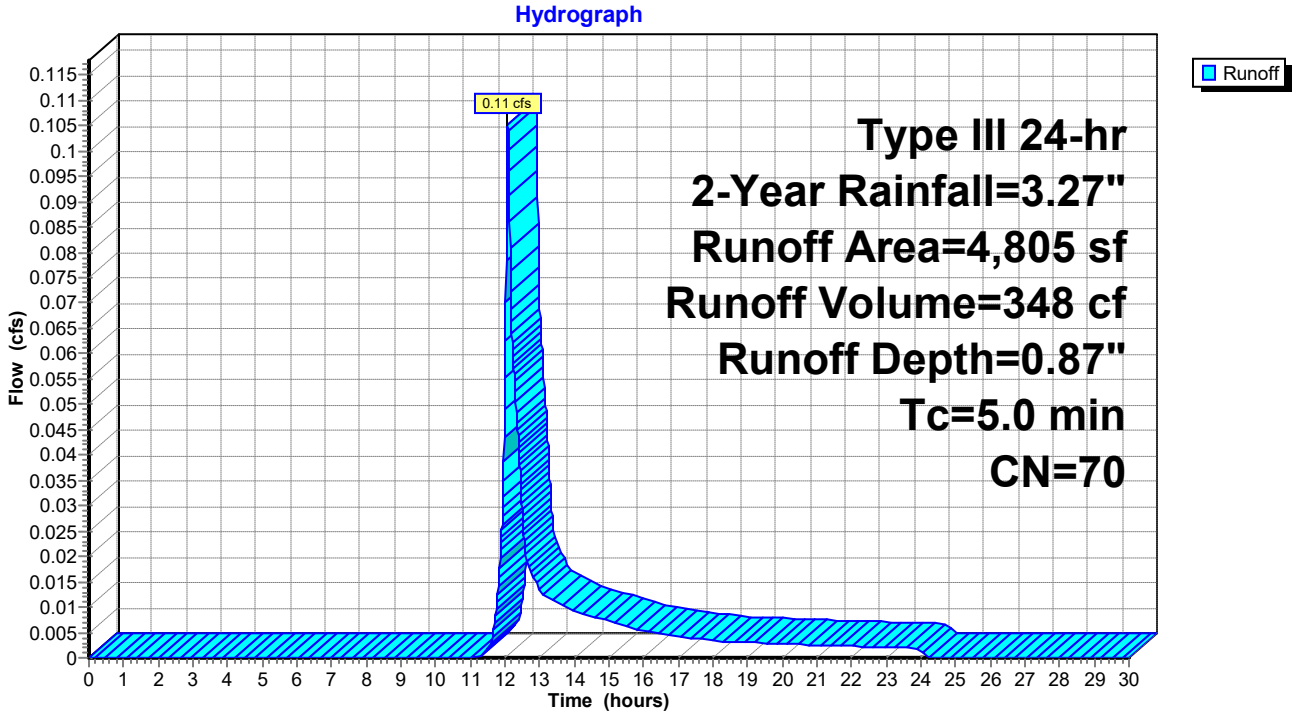
Runoff = 0.11 cfs @ 12.08 hrs, Volume= 348 cf, Depth= 0.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.27"

	Area (sf)	CN	Description
*	1,251	98	Roof (Existing house & Garage)
*	589	98	Existing paved driveway
*	716	98	Existing Walway, steps & Landings
	2,249	39	>75% Grass cover, Good, HSG A
	4,805	70	Weighted Average
	2,249		46.81% Pervious Area
	2,556		53.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment SC1: SC-1

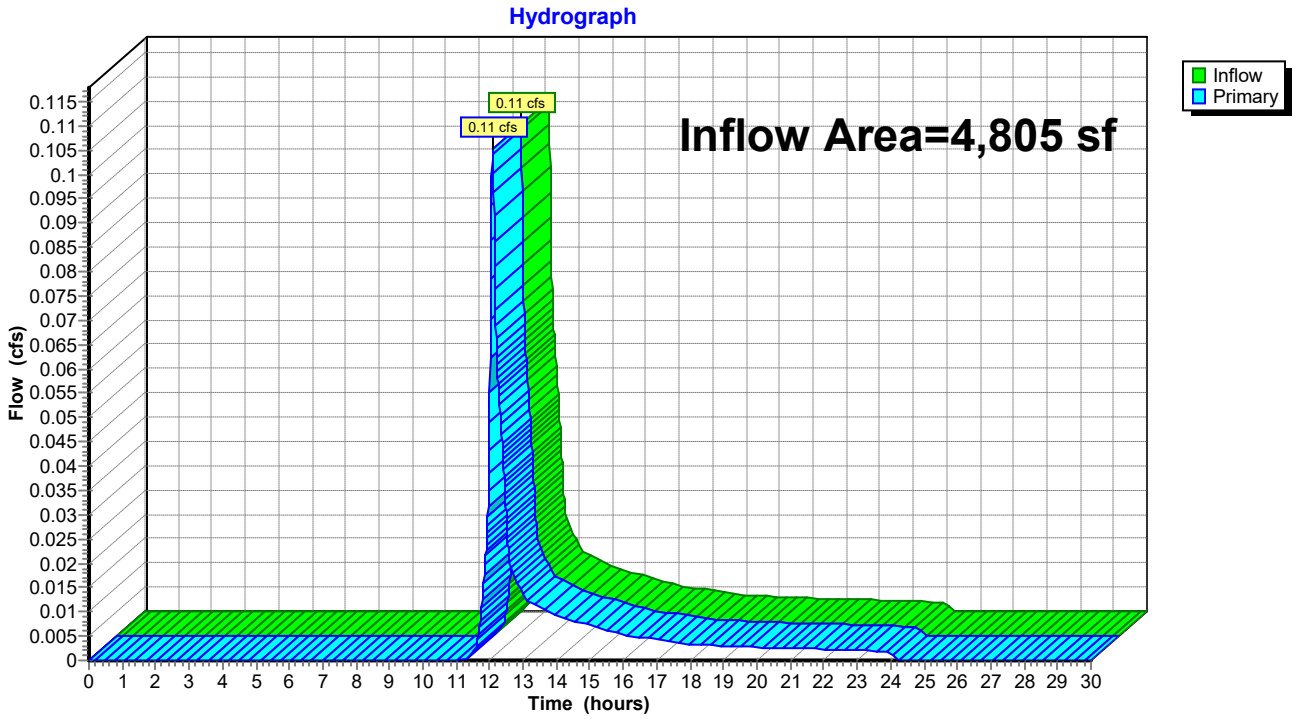


Summary for Link DP: DISCHARGE POINT (STREET)

Inflow Area = 4,805 sf, 53.19% Impervious, Inflow Depth = 0.87" for 2-Year event
Inflow = 0.11 cfs @ 12.08 hrs, Volume= 348 cf
Primary = 0.11 cfs @ 12.08 hrs, Volume= 348 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link DP: DISCHARGE POINT (STREET)



Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment SC1: SC-1 Runoff Area=4,805 sf 53.19% Impervious Runoff Depth=2.16"
Tc=5.0 min CN=70 Runoff=0.28 cfs 863 cf

Link DP: DISCHARGE POINT (STREET) Inflow=0.28 cfs 863 cf
Primary=0.28 cfs 863 cf

Total Runoff Area = 4,805 sf Runoff Volume = 863 cf Average Runoff Depth = 2.16"
46.81% Pervious = 2,249 sf 53.19% Impervious = 2,556 sf

Summary for Subcatchment SC1: SC-1

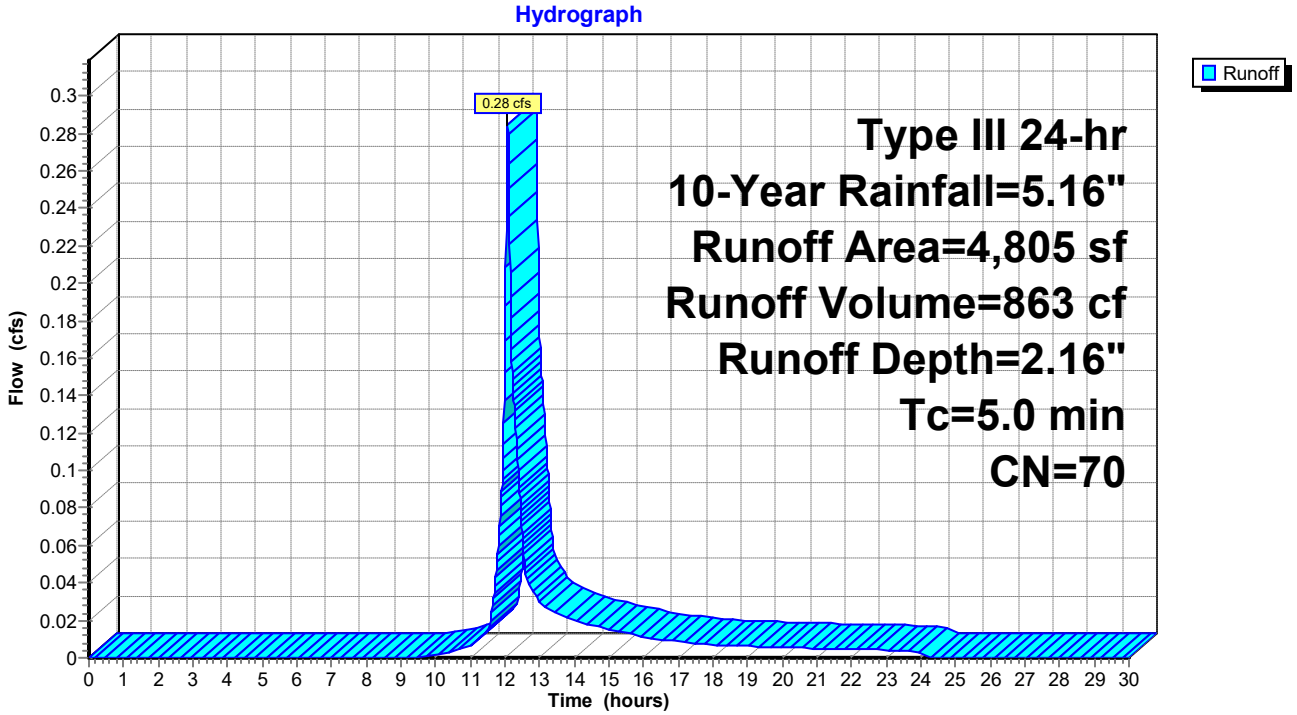
Runoff = 0.28 cfs @ 12.08 hrs, Volume= 863 cf, Depth= 2.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.16"

	Area (sf)	CN	Description
*	1,251	98	Roof (Existing house & Garage)
*	589	98	Existing paved driveway
*	716	98	Existing Walway, steps & Landings
	2,249	39	>75% Grass cover, Good, HSG A
	4,805	70	Weighted Average
	2,249		46.81% Pervious Area
	2,556		53.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment SC1: SC-1

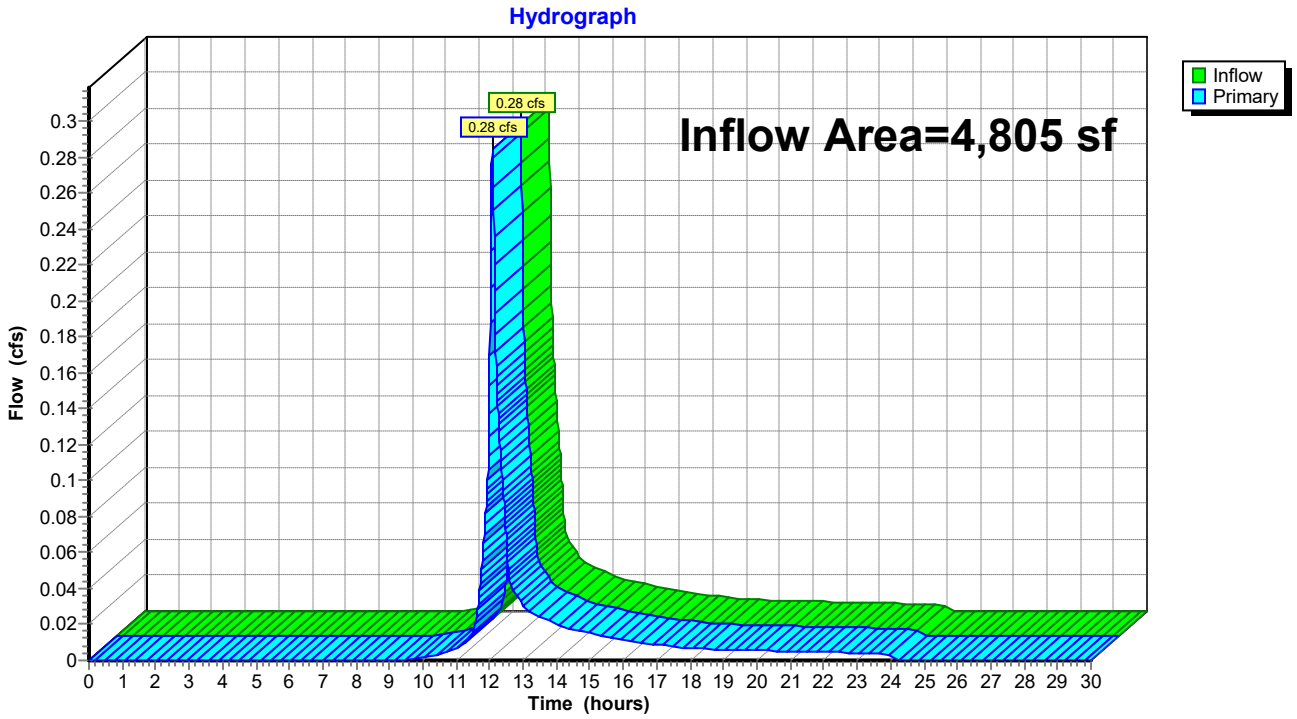


Summary for Link DP: DISCHARGE POINT (STREET)

Inflow Area = 4,805 sf, 53.19% Impervious, Inflow Depth = 2.16" for 10-Year event
Inflow = 0.28 cfs @ 12.08 hrs, Volume= 863 cf
Primary = 0.28 cfs @ 12.08 hrs, Volume= 863 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link DP: DISCHARGE POINT (STREET)



Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment SC1: SC-1 Runoff Area=4,805 sf 53.19% Impervious Runoff Depth=3.09"
Tc=5.0 min CN=70 Runoff=0.41 cfs 1,235 cf

Link DP: DISCHARGE POINT (STREET) Inflow=0.41 cfs 1,235 cf
Primary=0.41 cfs 1,235 cf

Total Runoff Area = 4,805 sf Runoff Volume = 1,235 cf Average Runoff Depth = 3.09"
46.81% Pervious = 2,249 sf 53.19% Impervious = 2,556 sf

Summary for Subcatchment SC1: SC-1

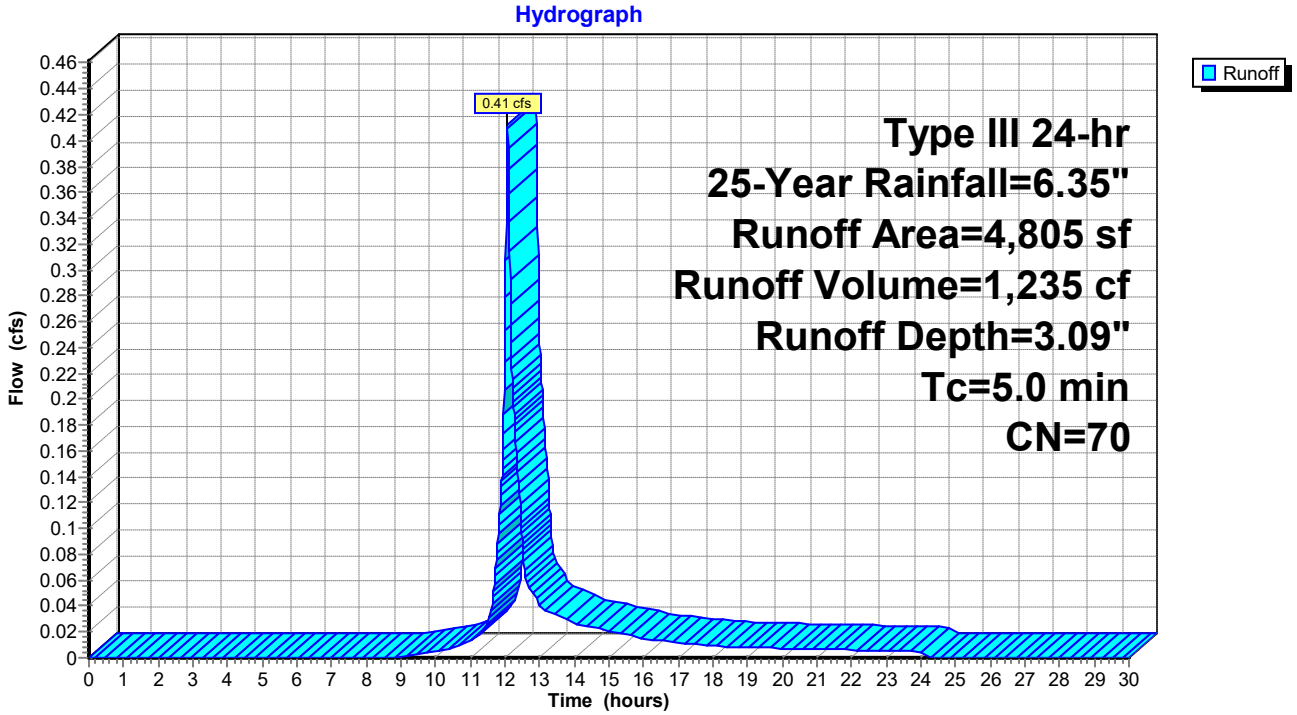
Runoff = 0.41 cfs @ 12.08 hrs, Volume= 1,235 cf, Depth= 3.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.35"

	Area (sf)	CN	Description
*	1,251	98	Roof (Existing house & Garage)
*	589	98	Existing paved driveway
*	716	98	Existing Walway, steps & Landings
	2,249	39	>75% Grass cover, Good, HSG A
	4,805	70	Weighted Average
	2,249		46.81% Pervious Area
	2,556		53.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment SC1: SC-1

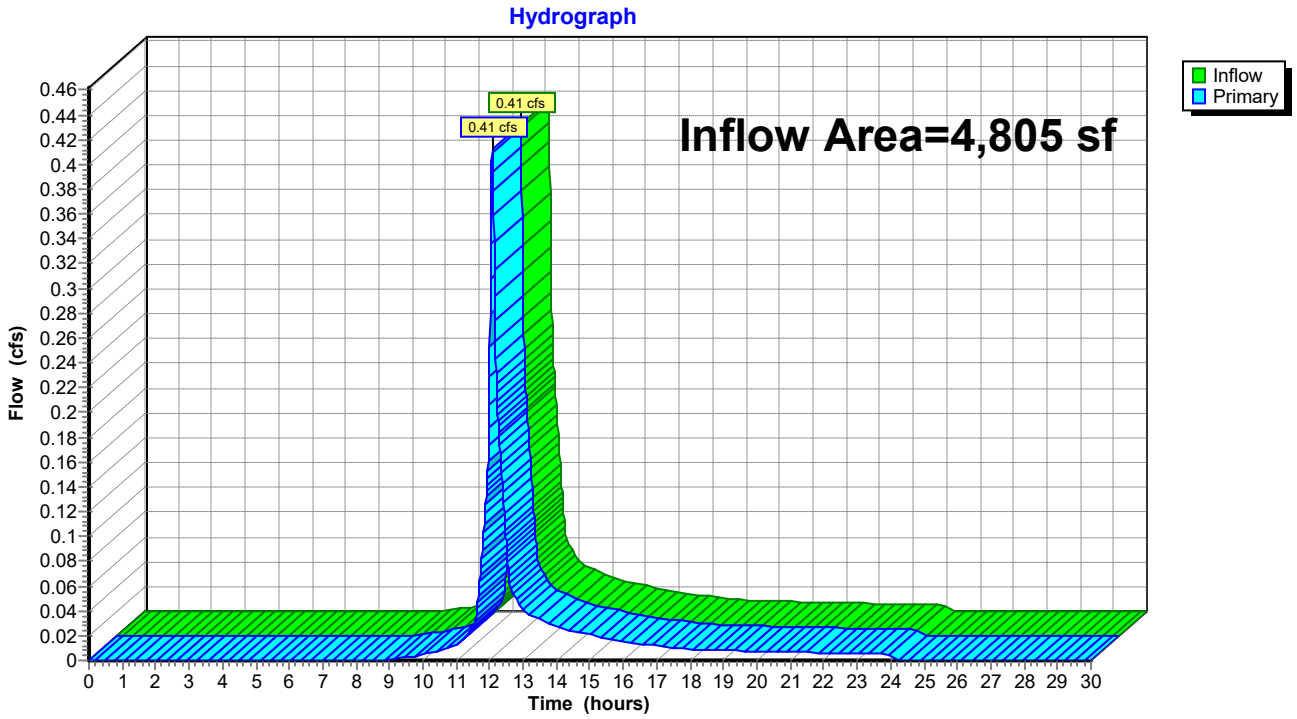


Summary for Link DP: DISCHARGE POINT (STREET)

Inflow Area = 4,805 sf, 53.19% Impervious, Inflow Depth = 3.09" for 25-Year event
Inflow = 0.41 cfs @ 12.08 hrs, Volume= 1,235 cf
Primary = 0.41 cfs @ 12.08 hrs, Volume= 1,235 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link DP: DISCHARGE POINT (STREET)



Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment SC1: SC-1 Runoff Area=4,805 sf 53.19% Impervious Runoff Depth=4.60"
Tc=5.0 min CN=70 Runoff=0.62 cfs 1,843 cf

Link DP: DISCHARGE POINT (STREET) Inflow=0.62 cfs 1,843 cf
Primary=0.62 cfs 1,843 cf

Total Runoff Area = 4,805 sf Runoff Volume = 1,843 cf Average Runoff Depth = 4.60"
46.81% Pervious = 2,249 sf 53.19% Impervious = 2,556 sf

Summary for Subcatchment SC1: SC-1

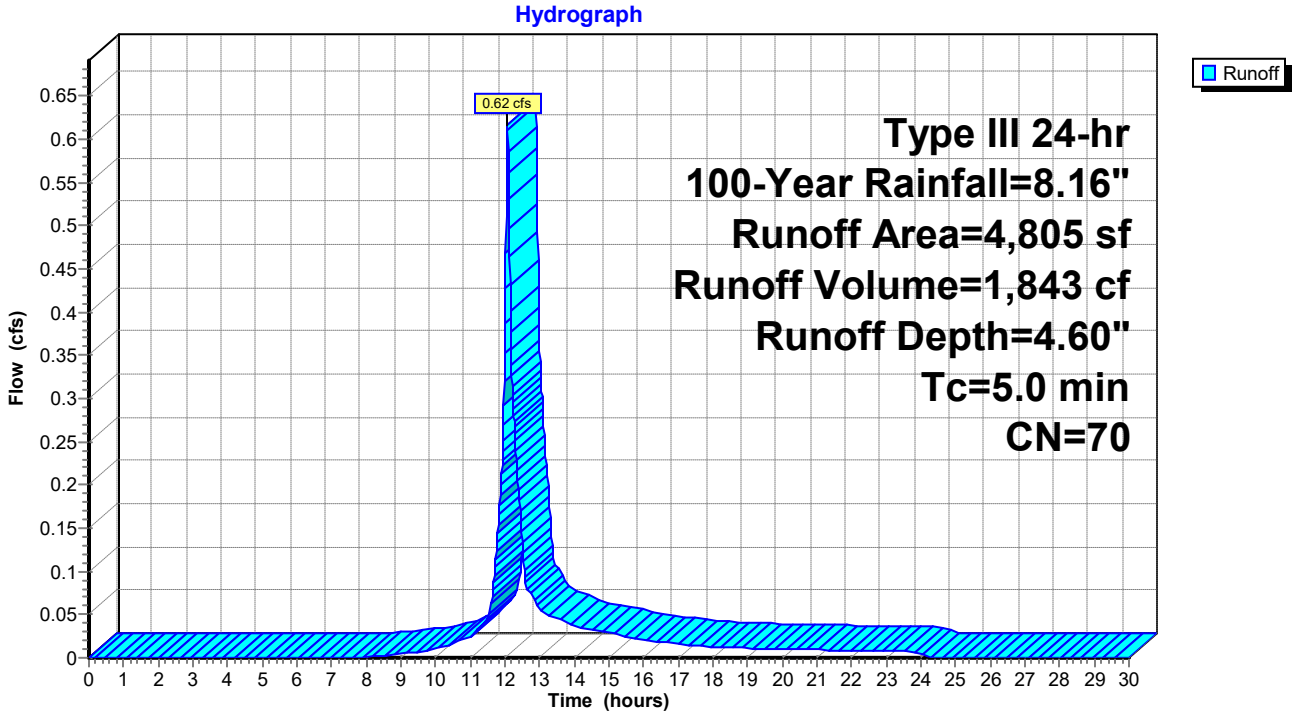
Runoff = 0.62 cfs @ 12.07 hrs, Volume= 1,843 cf, Depth= 4.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.16"

	Area (sf)	CN	Description
*	1,251	98	Roof (Existing house & Garage)
*	589	98	Existing paved driveway
*	716	98	Existing Walway, steps & Landings
	2,249	39	>75% Grass cover, Good, HSG A
	4,805	70	Weighted Average
	2,249		46.81% Pervious Area
	2,556		53.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment SC1: SC-1

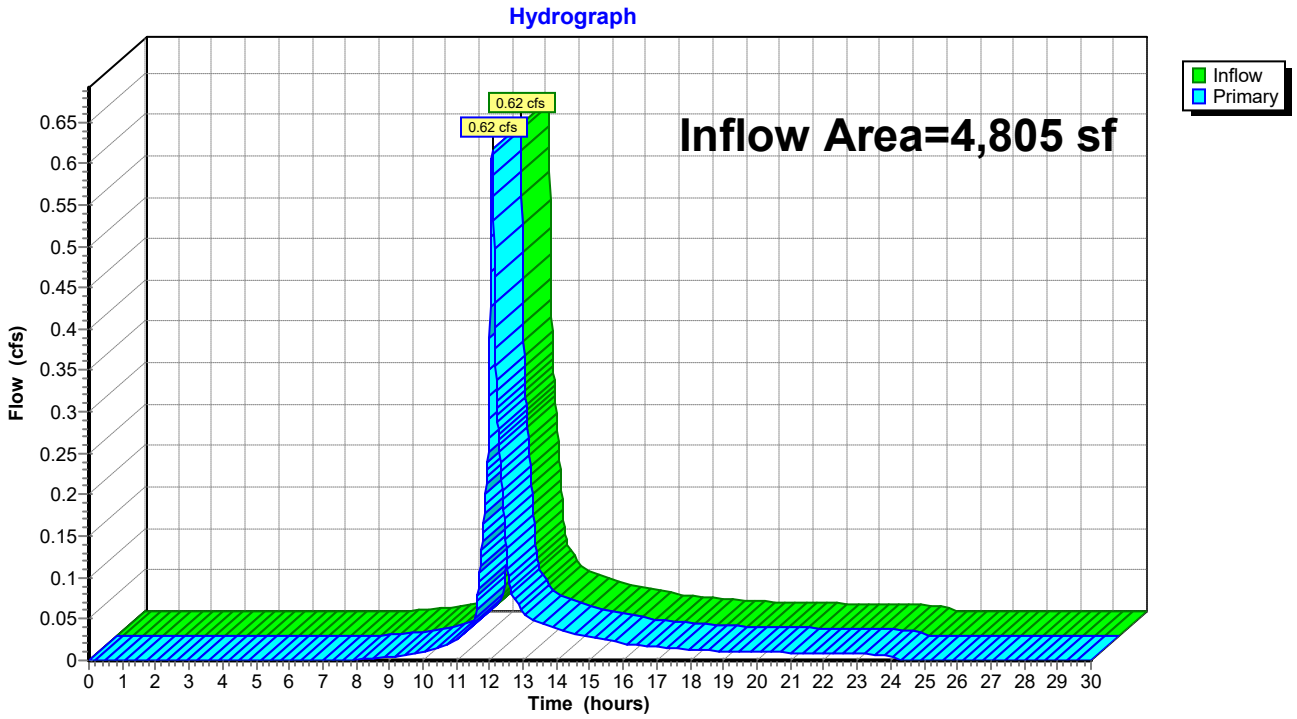


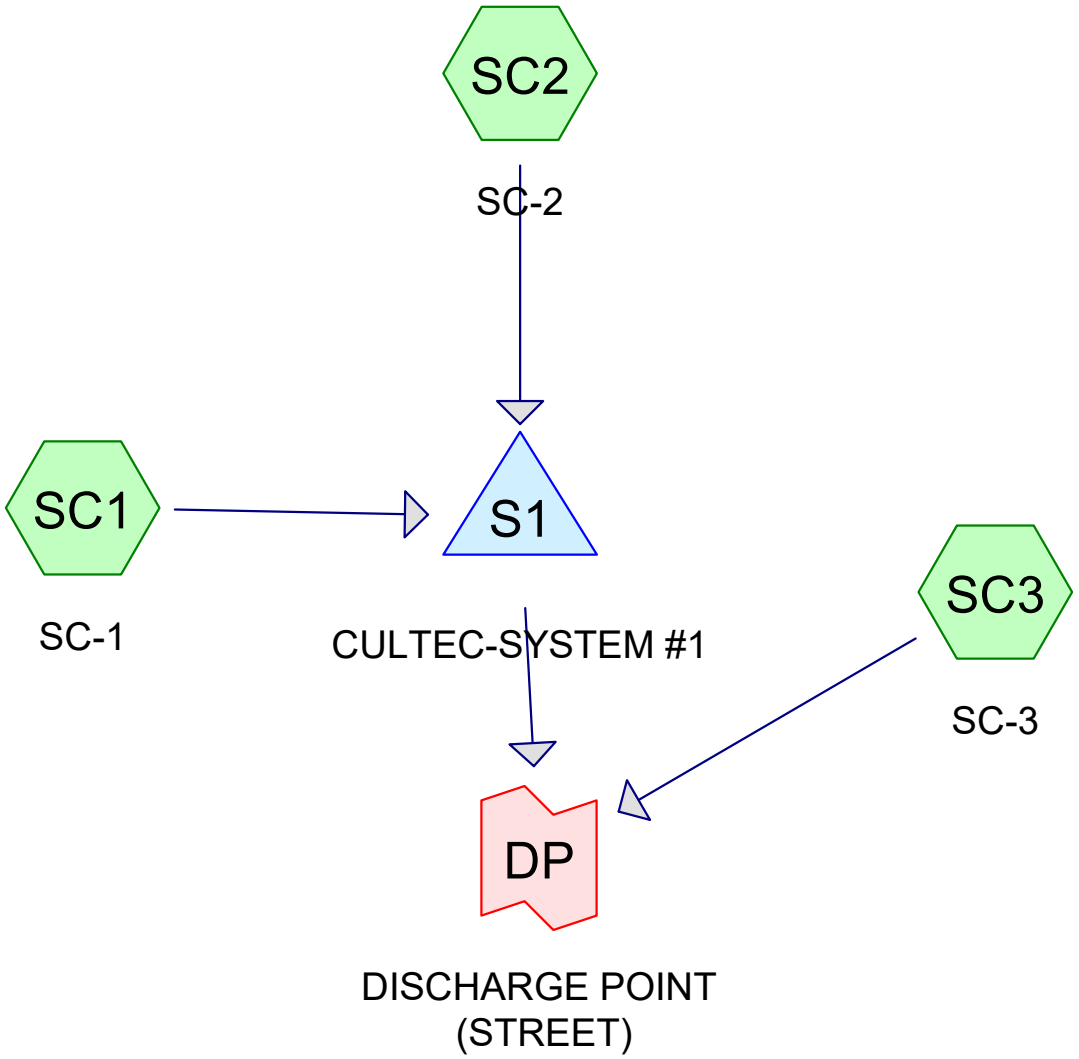
Summary for Link DP: DISCHARGE POINT (STREET)

Inflow Area = 4,805 sf, 53.19% Impervious, Inflow Depth = 4.60" for 100-Year event
Inflow = 0.62 cfs @ 12.07 hrs, Volume= 1,843 cf
Primary = 0.62 cfs @ 12.07 hrs, Volume= 1,843 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link DP: DISCHARGE POINT (STREET)





PROPOSED CONDITIONS

Subcat Reach Pond Link

Routing Diagram for PROPOSED
Prepared by SPRUHAN ENGINEERING P.C., Printed 7/18/2025
HydroCAD® 10.00-25 s/n 09067 © 2019 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (sq-ft)	CN	Description (subcatchment-numbers)
1,781	39	>75% Grass cover, Good, HSG A (SC3)
878	98	Paved driveway (SC2)
1,620	98	Roof (Proposed house & Covered Patio) (SC1)
525	98	Walkways, Steps & Landings (SC3)
4,804	**76**	**TOTAL AREA**

Soil Listing (all nodes)

Area (sq-ft)	Soil Group	Subcatchment Numbers
1,781	HSG A	SC3
0	HSG B	
0	HSG C	
0	HSG D	
3,023	Other	SC1, SC2, SC3
4,804		**TOTAL AREA**

Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment SC1: SC-1 Runoff Area=1,620 sf 100.00% Impervious Runoff Depth=3.04"
Tc=5.0 min CN=98 Runoff=0.12 cfs 410 cf

Subcatchment SC2: SC-2 Runoff Area=878 sf 100.00% Impervious Runoff Depth=3.04"
Tc=6.0 min CN=98 Runoff=0.06 cfs 222 cf

Subcatchment SC3: SC-3 Runoff Area=2,306 sf 22.77% Impervious Runoff Depth=0.19"
Tc=5.0 min CN=52 Runoff=0.00 cfs 37 cf

Pond S1: CULTEC-SYSTEM #1 Peak Elev=33.45' Storage=128 cf Inflow=0.19 cfs 632 cf
Discarded=0.05 cfs 632 cf Primary=0.00 cfs 0 cf Outflow=0.05 cfs 632 cf

Link DP: DISCHARGE POINT (STREET) Inflow=0.00 cfs 37 cf
Primary=0.00 cfs 37 cf

Total Runoff Area = 4,804 sf Runoff Volume = 669 cf Average Runoff Depth = 1.67"
37.07% Pervious = 1,781 sf 62.93% Impervious = 3,023 sf

Summary for Subcatchment SC1: SC-1

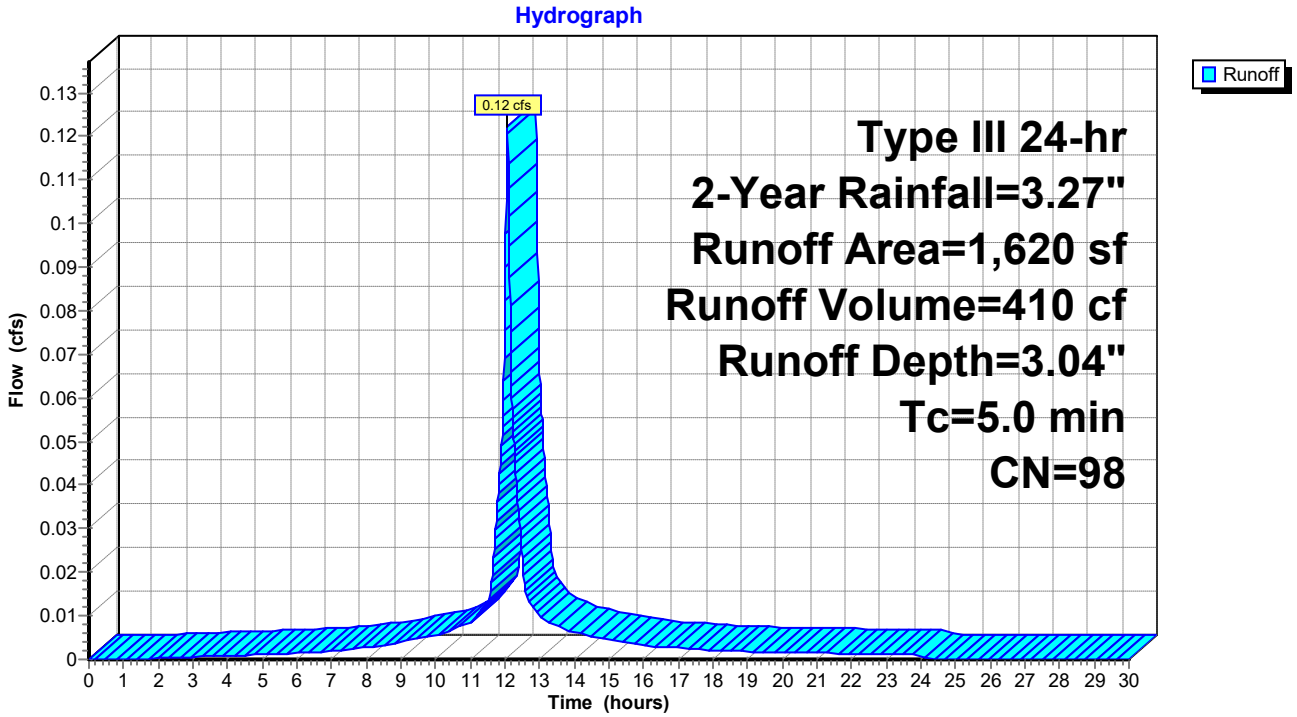
Runoff = 0.12 cfs @ 12.07 hrs, Volume= 410 cf, Depth= 3.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.27"

	Area (sf)	CN	Description
*	1,620	98	Roof (Proposed house & Covered Patio)
	1,620		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment SC1: SC-1



Summary for Subcatchment SC2: SC-2

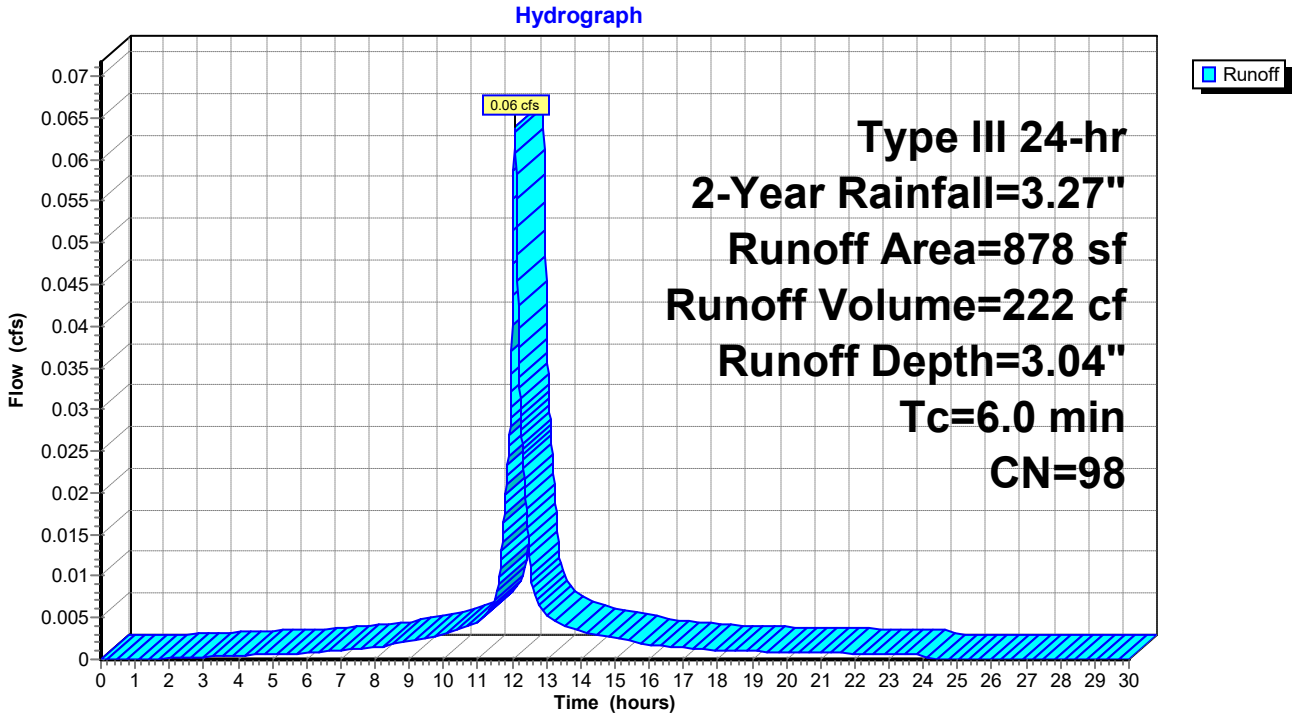
Runoff = 0.06 cfs @ 12.08 hrs, Volume= 222 cf, Depth= 3.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.27"

	Area (sf)	CN	Description
*	878	98	Paved driveway
	878		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment SC2: SC-2



Summary for Subcatchment SC3: SC-3

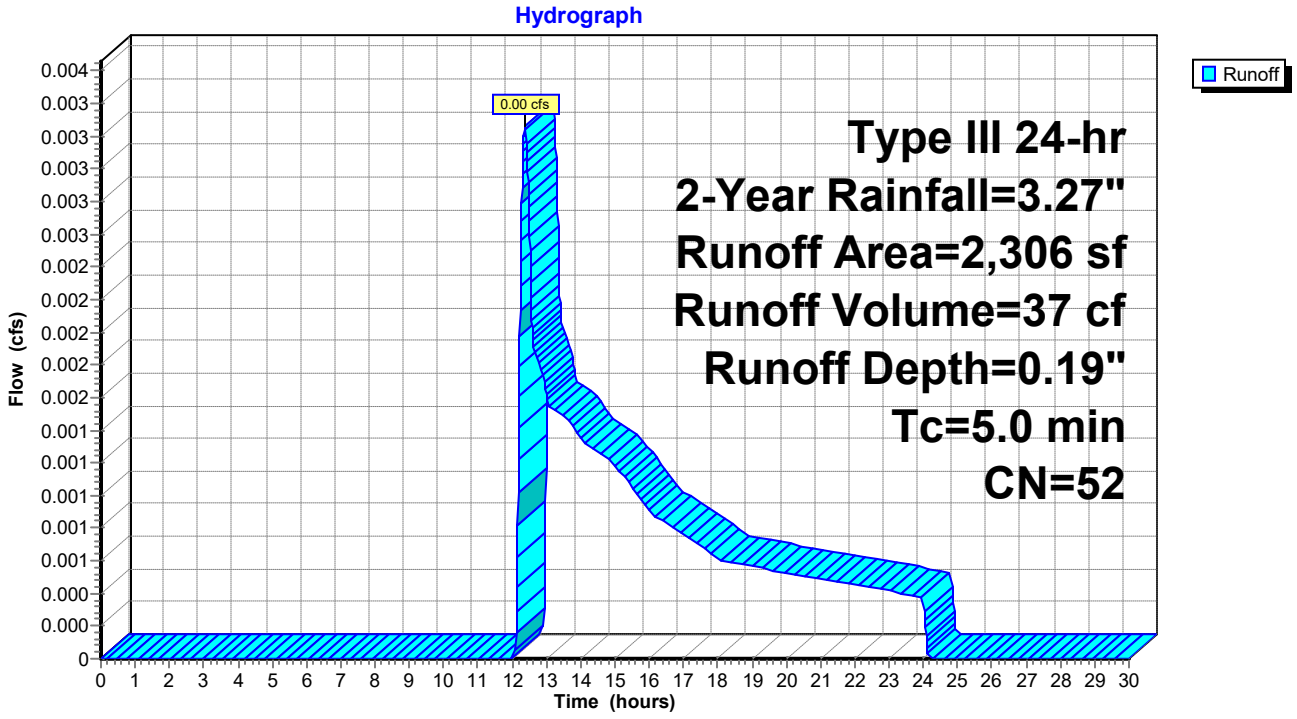
Runoff = 0.00 cfs @ 12.38 hrs, Volume= 37 cf, Depth= 0.19"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 2-Year Rainfall=3.27"

	Area (sf)	CN	Description
*	525	98	Walkways, Steps & Landings
	1,781	39	>75% Grass cover, Good, HSG A
	2,306	52	Weighted Average
	1,781		77.23% Pervious Area
	525		22.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment SC3: SC-3



Summary for Pond S1: CULTEC-SYSTEM #1

Inflow Area = 2,498 sf,100.00% Impervious, Inflow Depth = 3.04" for 2-Year event
Inflow = 0.19 cfs @ 12.07 hrs, Volume= 632 cf
Outflow = 0.05 cfs @ 12.40 hrs, Volume= 632 cf, Atten= 72%, Lag= 19.8 min
Discarded = 0.05 cfs @ 12.40 hrs, Volume= 632 cf
Primary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 33.45' @ 12.40 hrs Surf.Area= 163 sf Storage= 128 cf

Plug-Flow detention time= 13.6 min calculated for 632 cf (100% of inflow)
Center-of-Mass det. time= 13.6 min (768.9 - 755.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	32.00'	110 cf	**5.00'W x 32.50'L x 2.04'H Field A** 332 cf Overall - 57 cf Embedded = 275 cf x 40.0% Voids
#2A	32.50'	57 cf	**Cultec C-100HD** x 4 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 1 rows
		167 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	32.00'	**8.270 in/hr Exfiltration over Wetted area**
#2	Primary	33.50'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.05 cfs @ 12.40 hrs HW=33.45' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.05 cfs)

Primary OutFlow Max=0.00 cfs @ 0.00 hrs HW=32.00' (Free Discharge)
2=Orifice/Grate (Controls 0.00 cfs)

Pond S1: CULTEC-SYSTEM #1 - Chamber Wizard Field A

Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)
Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf
Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
Row Length Adjustment= +0.50' x 1.86 sf x 1 rows

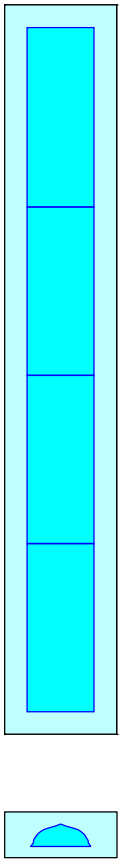
4 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 30.50' Row Length +12.0" End Stone x 2 = 32.50' Base Length
1 Rows x 36.0" Wide + 12.0" Side Stone x 2 = 5.00' Base Width
6.0" Base + 12.5" Chamber Height + 6.0" Cover = 2.04' Field Height

4 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 1 Rows = 56.8 cf Chamber Storage

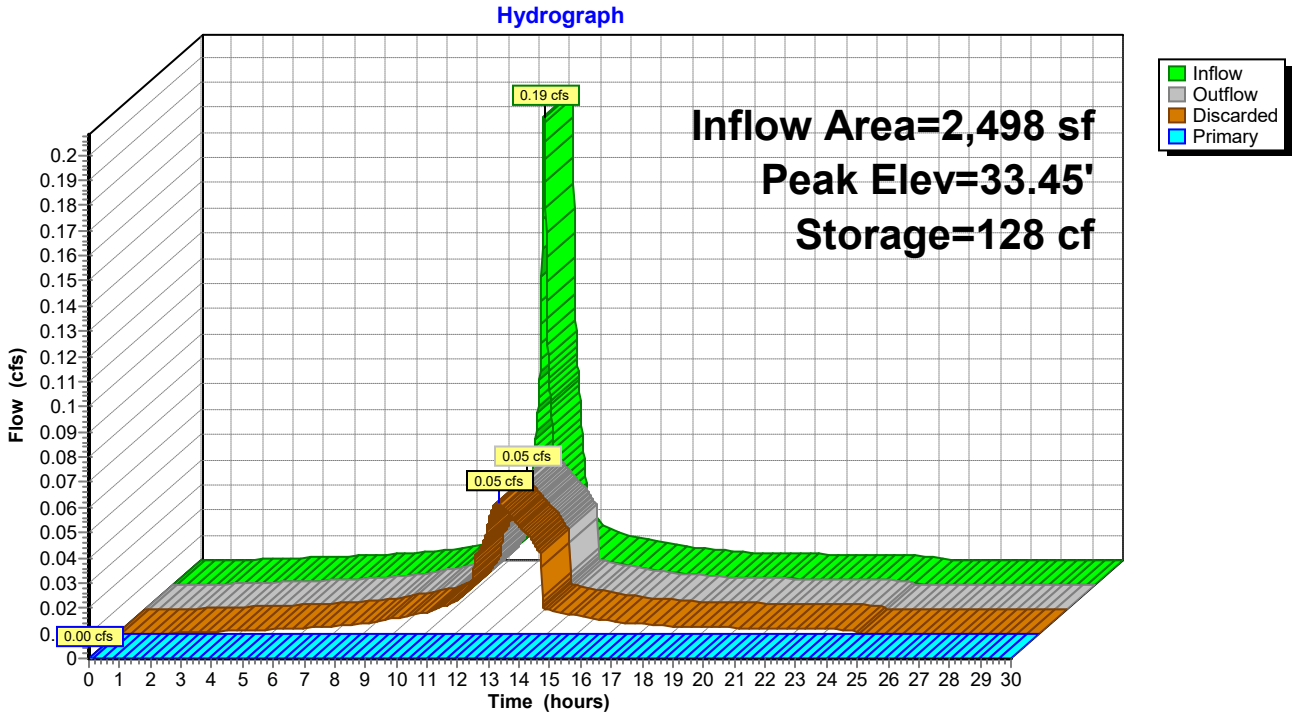
331.8 cf Field - 56.8 cf Chambers = 275.0 cf Stone x 40.0% Voids = 110.0 cf Stone Storage

Chamber Storage + Stone Storage = 166.8 cf = 0.004 af
Overall Storage Efficiency = 50.3%
Overall System Size = 32.50' x 5.00' x 2.04'

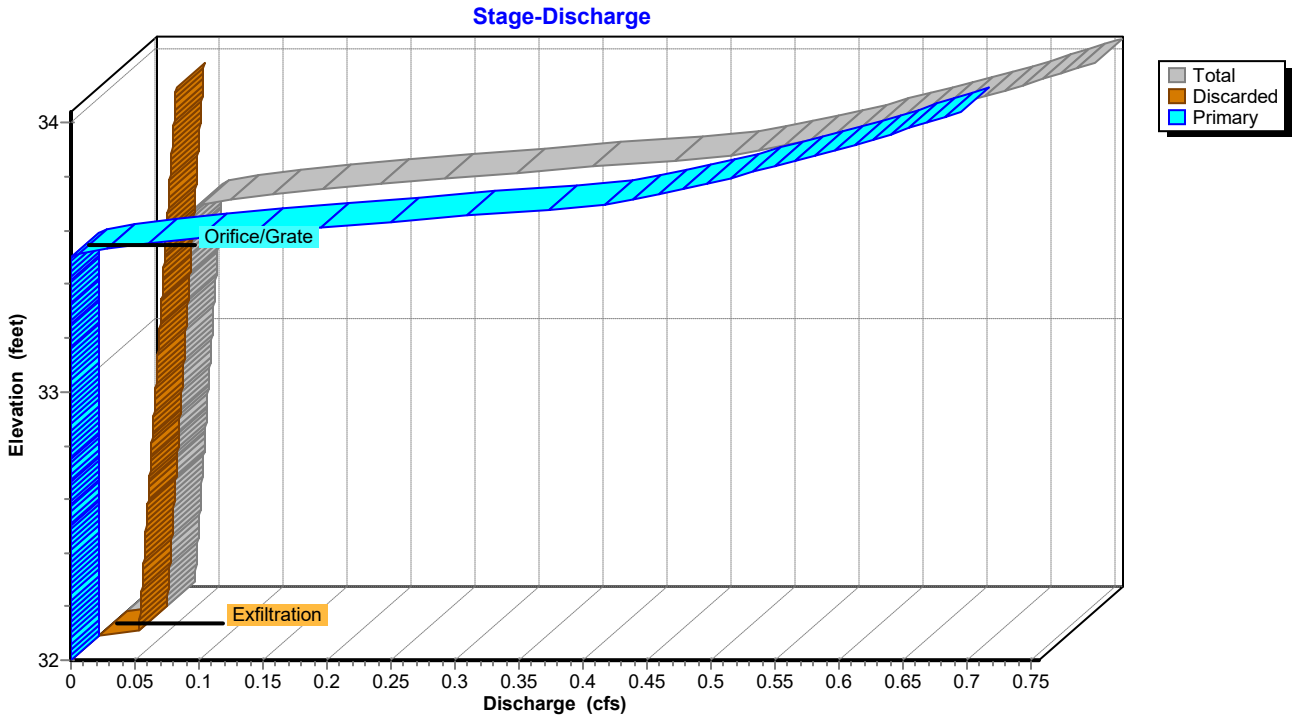
4 Chambers
12.3 cy Field
10.2 cy Stone



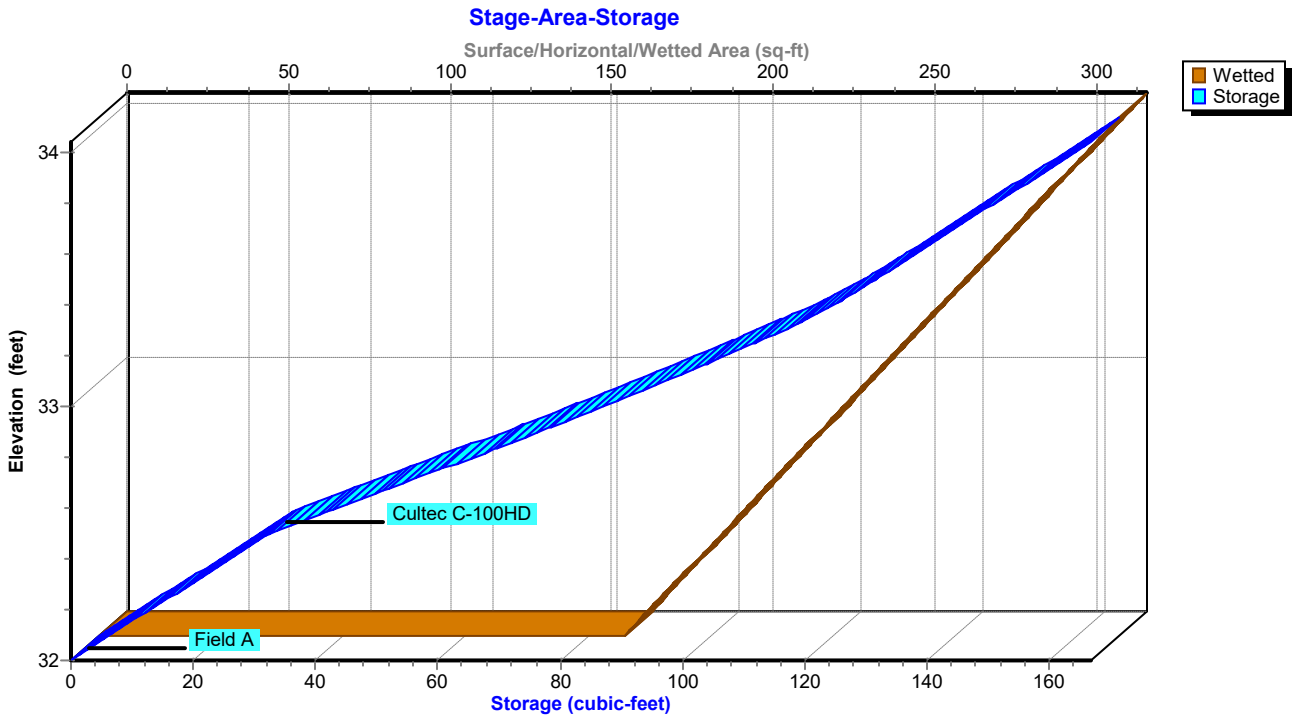
Pond S1: CULTEC-SYSTEM #1



Pond S1: CULTEC-SYSTEM #1



Pond S1: CULTEC-SYSTEM #1

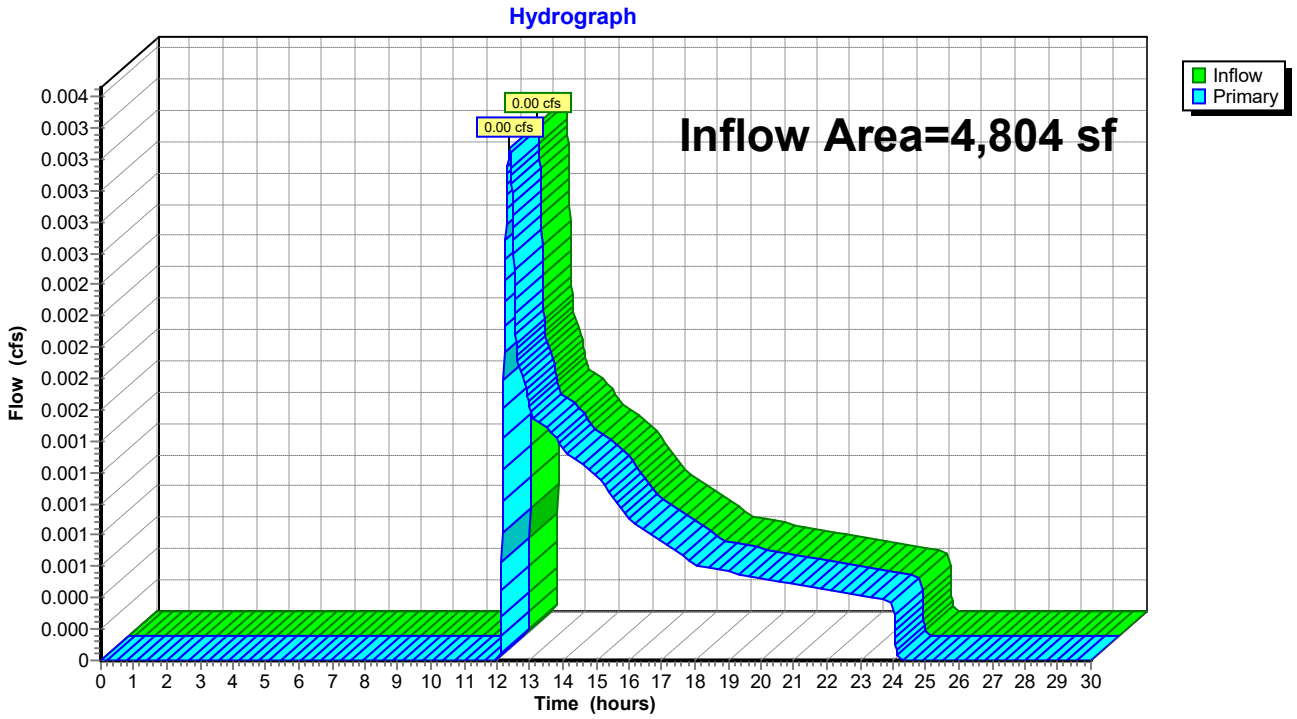


Summary for Link DP: DISCHARGE POINT (STREET)

Inflow Area = 4,804 sf, 62.93% Impervious, Inflow Depth = 0.09" for 2-Year event
Inflow = 0.00 cfs @ 12.38 hrs, Volume= 37 cf
Primary = 0.00 cfs @ 12.38 hrs, Volume= 37 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link DP: DISCHARGE POINT (STREET)



Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment SC1: SC-1 Runoff Area=1,620 sf 100.00% Impervious Runoff Depth=4.92"
Tc=5.0 min CN=98 Runoff=0.19 cfs 665 cf

Subcatchment SC2: SC-2 Runoff Area=878 sf 100.00% Impervious Runoff Depth=4.92"
Tc=6.0 min CN=98 Runoff=0.10 cfs 360 cf

Subcatchment SC3: SC-3 Runoff Area=2,306 sf 22.77% Impervious Runoff Depth=0.88"
Tc=5.0 min CN=52 Runoff=0.04 cfs 168 cf

Pond S1: CULTEC-SYSTEM #1 Peak Elev=33.63' Storage=140 cf Inflow=0.30 cfs 1,025 cf
Discarded=0.05 cfs 889 cf Primary=0.23 cfs 136 cf Outflow=0.29 cfs 1,025 cf

Link DP: DISCHARGE POINT (STREET) Inflow=0.27 cfs 305 cf
Primary=0.27 cfs 305 cf

Total Runoff Area = 4,804 sf Runoff Volume = 1,193 cf Average Runoff Depth = 2.98"
37.07% Pervious = 1,781 sf 62.93% Impervious = 3,023 sf

Summary for Subcatchment SC1: SC-1

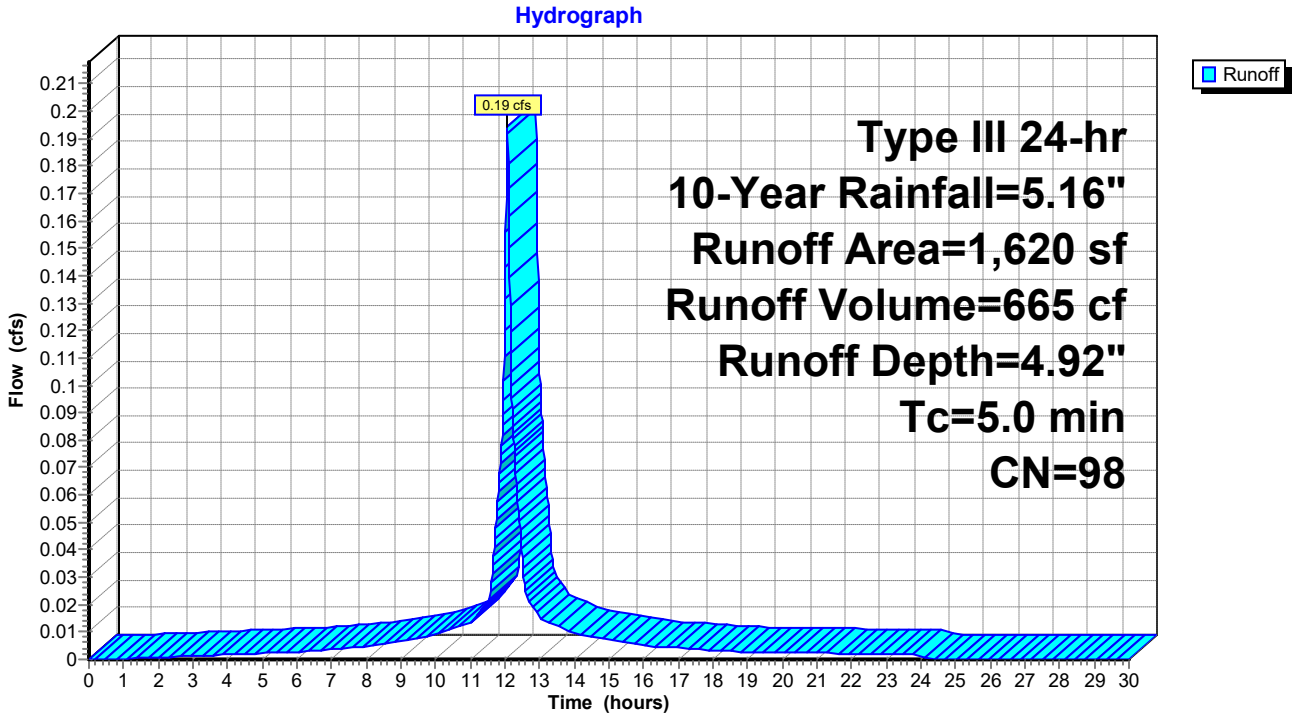
Runoff = 0.19 cfs @ 12.07 hrs, Volume= 665 cf, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.16"

	Area (sf)	CN	Description
*	1,620	98	Roof (Proposed house & Covered Patio)
	1,620		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment SC1: SC-1



Summary for Subcatchment SC2: SC-2

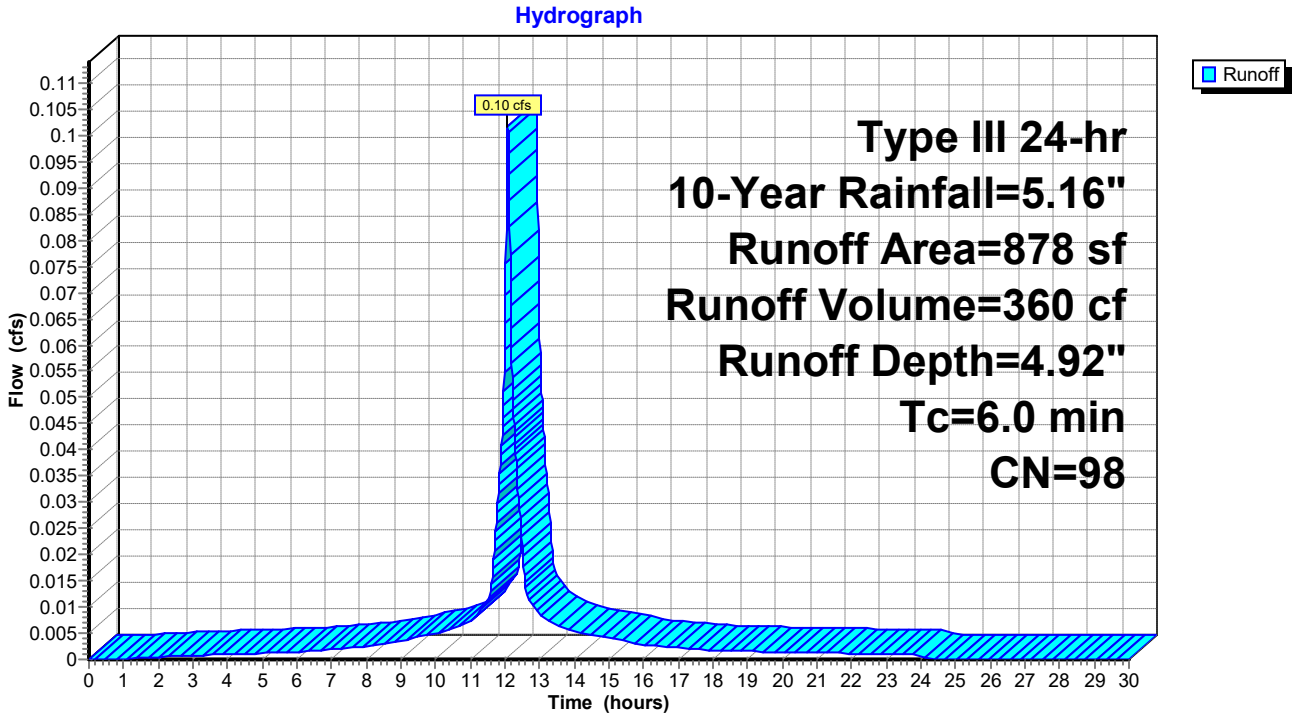
Runoff = 0.10 cfs @ 12.08 hrs, Volume= 360 cf, Depth= 4.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.16"

	Area (sf)	CN	Description
*	878	98	Paved driveway
	878		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment SC2: SC-2



Summary for Subcatchment SC3: SC-3

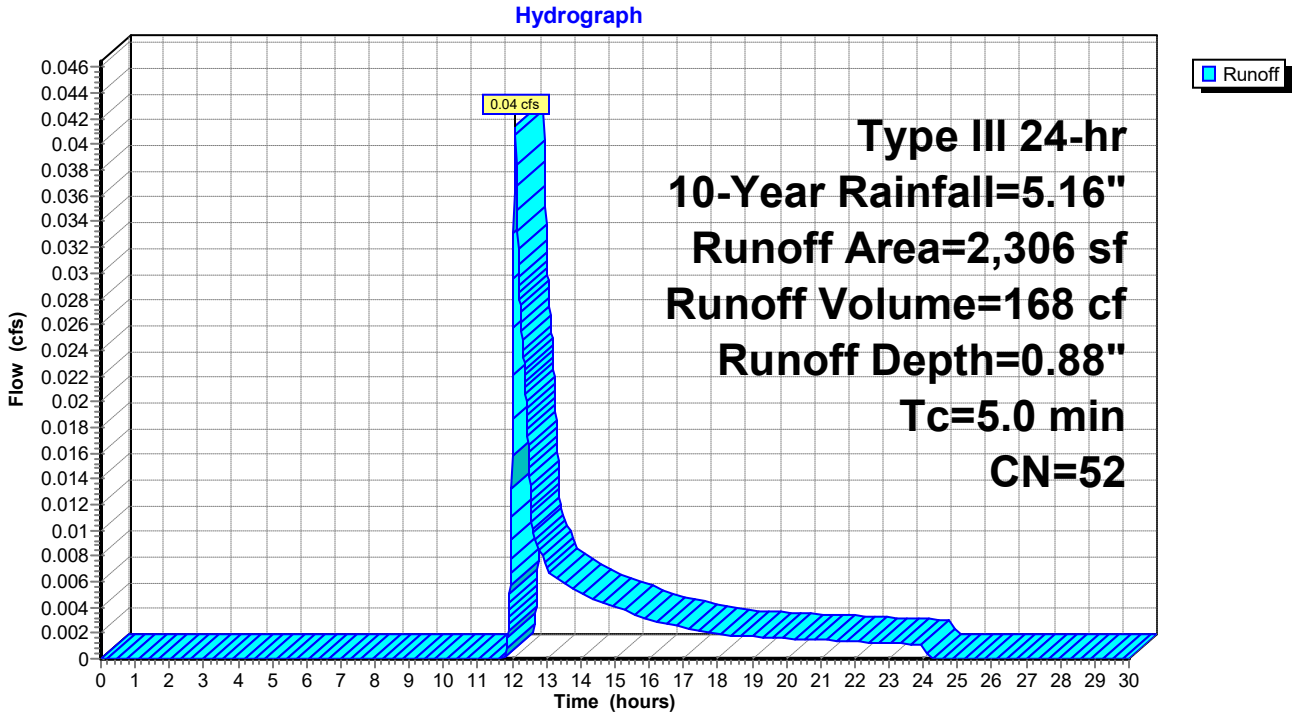
Runoff = 0.04 cfs @ 12.10 hrs, Volume= 168 cf, Depth= 0.88"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.16"

	Area (sf)	CN	Description
*	525	98	Walkways, Steps & Landings
	1,781	39	>75% Grass cover, Good, HSG A
	2,306	52	Weighted Average
	1,781		77.23% Pervious Area
	525		22.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment SC3: SC-3



Summary for Pond S1: CULTEC-SYSTEM #1

Inflow Area = 2,498 sf,100.00% Impervious, Inflow Depth = 4.92" for 10-Year event
Inflow = 0.30 cfs @ 12.07 hrs, Volume= 1,025 cf
Outflow = 0.29 cfs @ 12.09 hrs, Volume= 1,025 cf, Atten= 3%, Lag= 1.2 min
Discarded = 0.05 cfs @ 12.09 hrs, Volume= 889 cf
Primary = 0.23 cfs @ 12.09 hrs, Volume= 136 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 33.63' @ 12.09 hrs Surf.Area= 163 sf Storage= 140 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 12.0 min (758.9 - 746.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	32.00'	110 cf	**5.00'W x 32.50'L x 2.04'H Field A** 332 cf Overall - 57 cf Embedded = 275 cf x 40.0% Voids
#2A	32.50'	57 cf	**Cultec C-100HD** x 4 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 1 rows
		167 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	32.00'	**8.270 in/hr Exfiltration over Wetted area**
#2	Primary	33.50'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.05 cfs @ 12.09 hrs HW=33.63' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.05 cfs)

Primary OutFlow Max=0.23 cfs @ 12.09 hrs HW=33.63' (Free Discharge)
2=Orifice/Grate (Weir Controls 0.23 cfs @ 1.16 fps)

Pond S1: CULTEC-SYSTEM #1 - Chamber Wizard Field A

Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)
Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf
Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
Row Length Adjustment= +0.50' x 1.86 sf x 1 rows

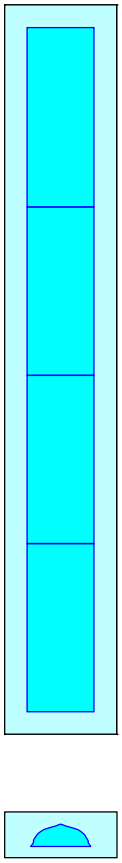
4 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 30.50' Row Length +12.0" End Stone x 2 = 32.50' Base Length
1 Rows x 36.0" Wide + 12.0" Side Stone x 2 = 5.00' Base Width
6.0" Base + 12.5" Chamber Height + 6.0" Cover = 2.04' Field Height

4 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 1 Rows = 56.8 cf Chamber Storage

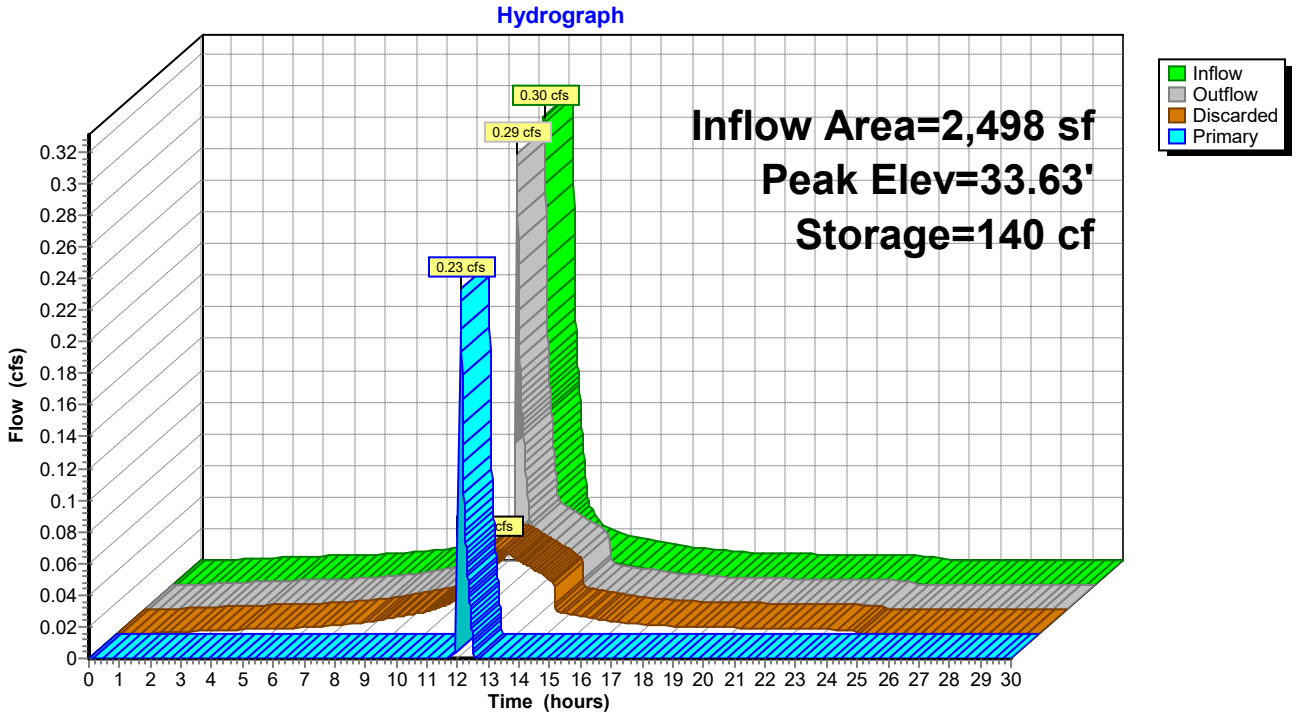
331.8 cf Field - 56.8 cf Chambers = 275.0 cf Stone x 40.0% Voids = 110.0 cf Stone Storage

Chamber Storage + Stone Storage = 166.8 cf = 0.004 af
Overall Storage Efficiency = 50.3%
Overall System Size = 32.50' x 5.00' x 2.04'

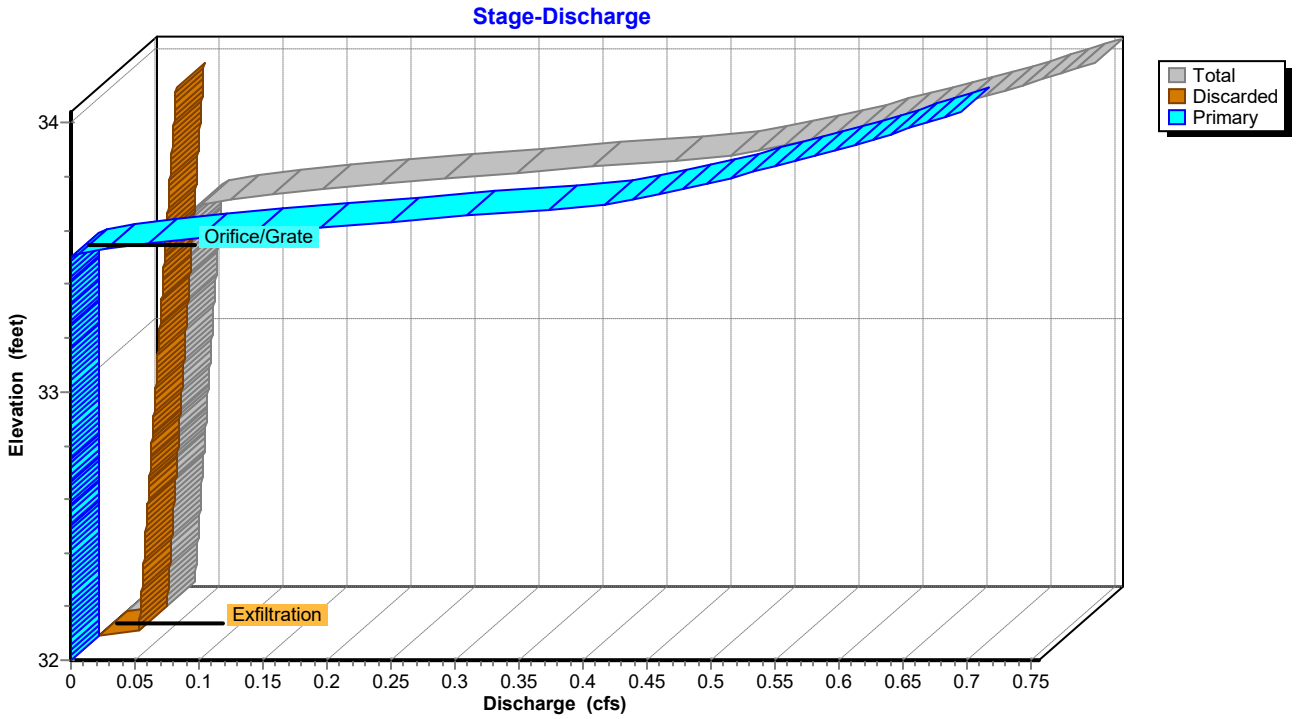
4 Chambers
12.3 cy Field
10.2 cy Stone



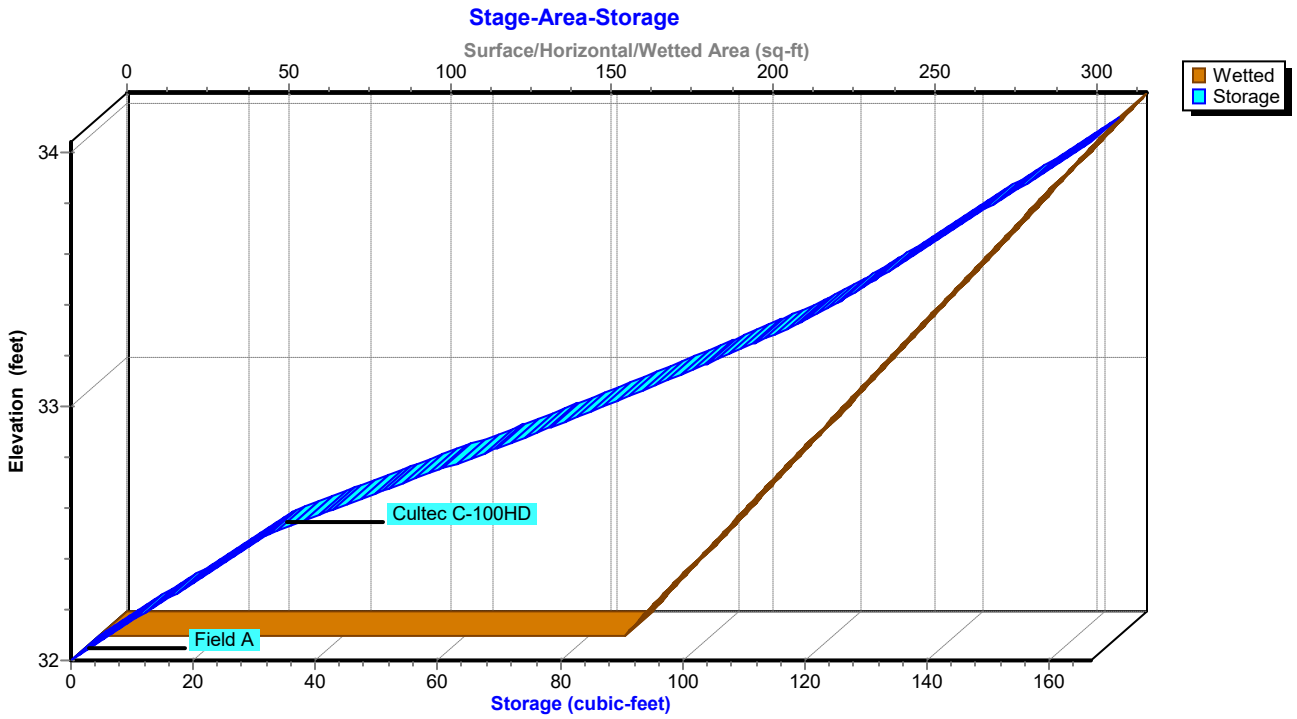
Pond S1: CULTEC-SYSTEM #1



Pond S1: CULTEC-SYSTEM #1



Pond S1: CULTEC-SYSTEM #1

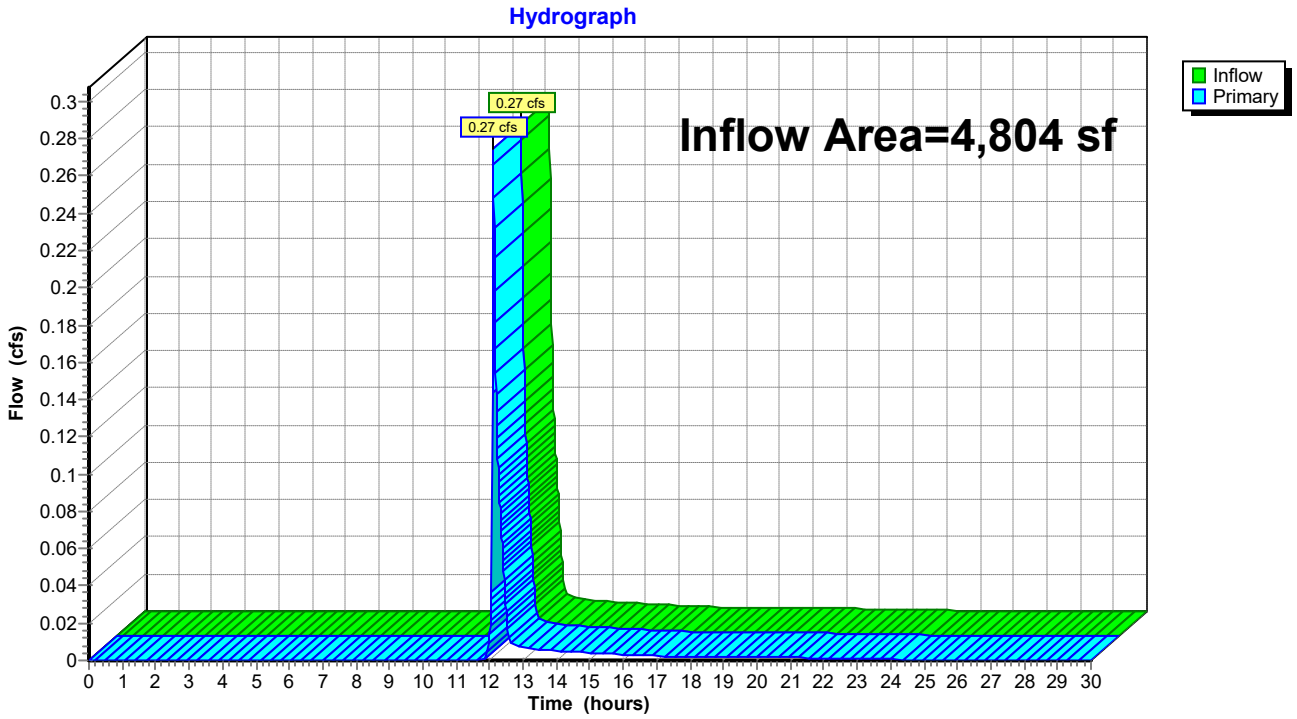


Summary for Link DP: DISCHARGE POINT (STREET)

Inflow Area = 4,804 sf, 62.93% Impervious, Inflow Depth = 0.76" for 10-Year event
Inflow = 0.27 cfs @ 12.09 hrs, Volume= 305 cf
Primary = 0.27 cfs @ 12.09 hrs, Volume= 305 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link DP: DISCHARGE POINT (STREET)



Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment SC1: SC-1 Runoff Area=1,620 sf 100.00% Impervious Runoff Depth=6.11"
Tc=5.0 min CN=98 Runoff=0.24 cfs 825 cf

Subcatchment SC2: SC-2 Runoff Area=878 sf 100.00% Impervious Runoff Depth=6.11"
Tc=6.0 min CN=98 Runoff=0.13 cfs 447 cf

Subcatchment SC3: SC-3 Runoff Area=2,306 sf 22.77% Impervious Runoff Depth=1.48"
Tc=5.0 min CN=52 Runoff=0.08 cfs 284 cf

Pond S1: CULTEC-SYSTEM #1 Peak Elev=33.65' Storage=142 cf Inflow=0.36 cfs 1,272 cf
Discarded=0.05 cfs 1,037 cf Primary=0.31 cfs 235 cf Outflow=0.36 cfs 1,272 cf

Link DP: DISCHARGE POINT (STREET) Inflow=0.39 cfs 519 cf
Primary=0.39 cfs 519 cf

Total Runoff Area = 4,804 sf Runoff Volume = 1,556 cf Average Runoff Depth = 3.89"
37.07% Pervious = 1,781 sf 62.93% Impervious = 3,023 sf

Summary for Subcatchment SC1: SC-1

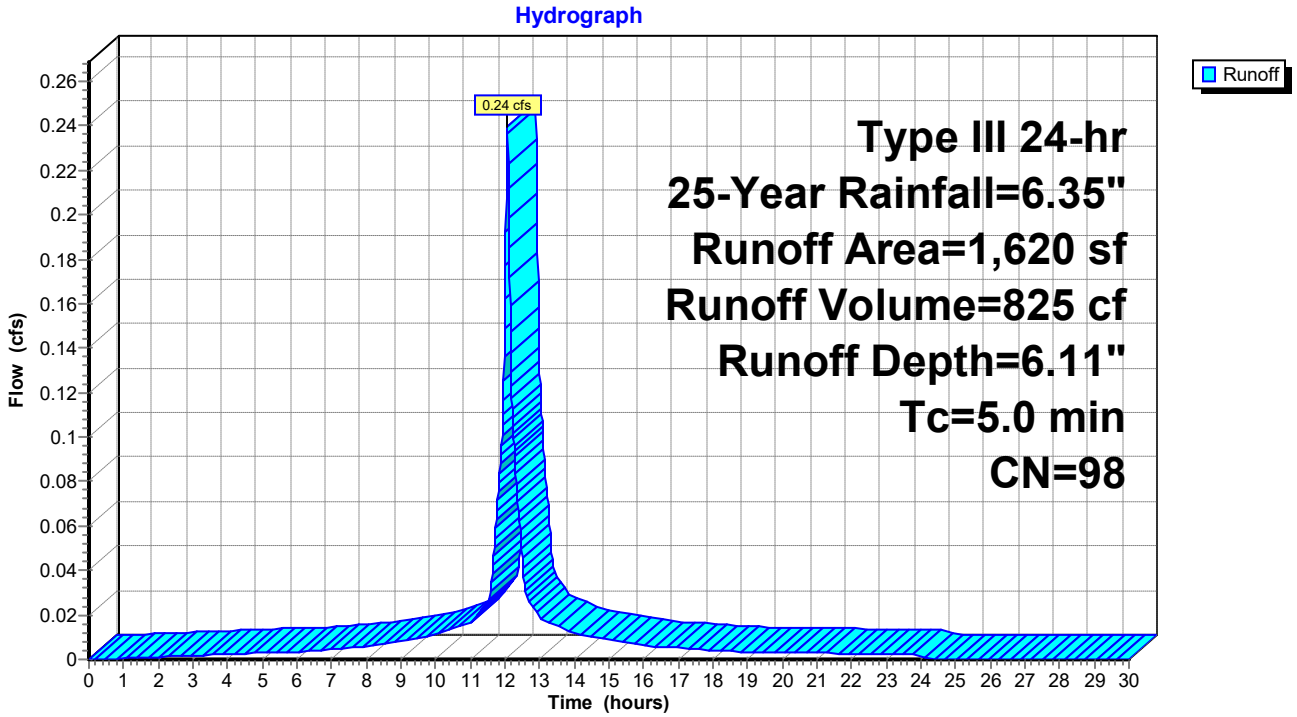
Runoff = 0.24 cfs @ 12.07 hrs, Volume= 825 cf, Depth= 6.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.35"

	Area (sf)	CN	Description
*	1,620	98	Roof (Proposed house & Covered Patio)
	1,620		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment SC1: SC-1



Summary for Subcatchment SC2: SC-2

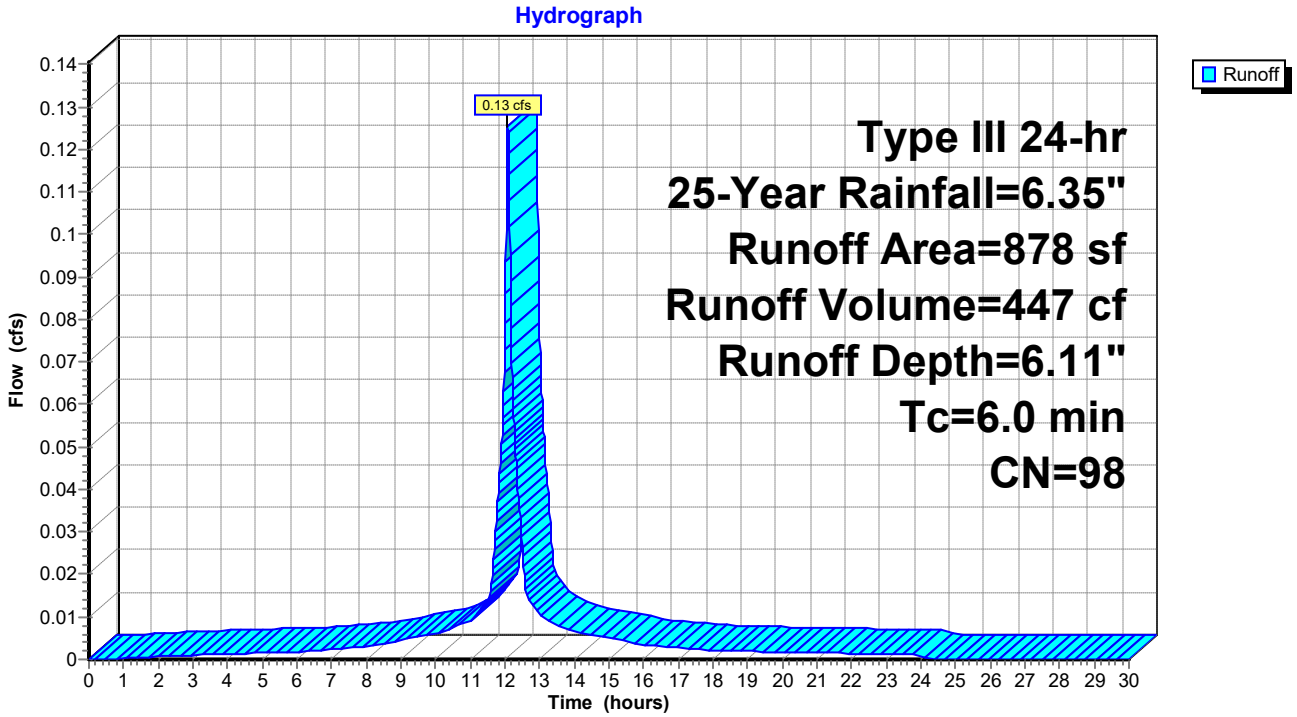
Runoff = 0.13 cfs @ 12.08 hrs, Volume= 447 cf, Depth= 6.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.35"

	Area (sf)	CN	Description
*	878	98	Paved driveway
	878		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment SC2: SC-2



Summary for Subcatchment SC3: SC-3

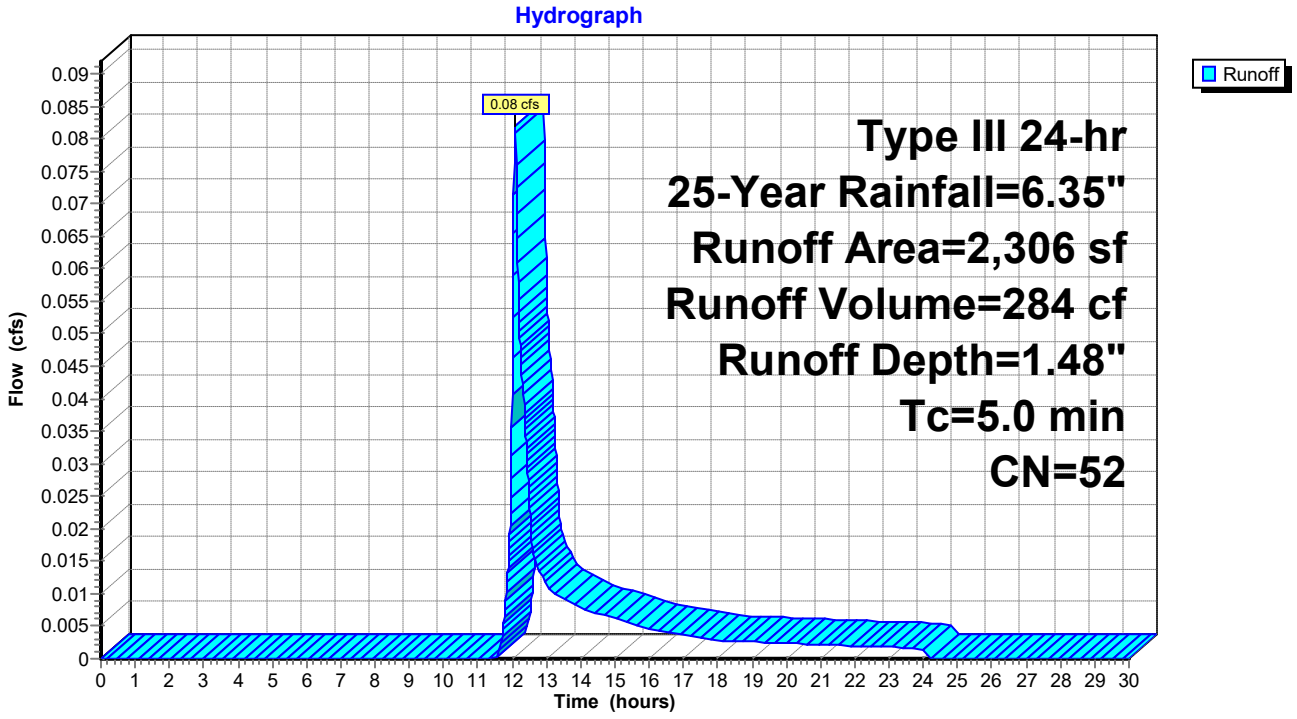
Runoff = 0.08 cfs @ 12.09 hrs, Volume= 284 cf, Depth= 1.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 25-Year Rainfall=6.35"

	Area (sf)	CN	Description
*	525	98	Walkways, Steps & Landings
	1,781	39	>75% Grass cover, Good, HSG A
	2,306	52	Weighted Average
	1,781		77.23% Pervious Area
	525		22.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment SC3: SC-3



Summary for Pond S1: CULTEC-SYSTEM #1

Inflow Area = 2,498 sf,100.00% Impervious, Inflow Depth = 6.11" for 25-Year event
Inflow = 0.36 cfs @ 12.07 hrs, Volume= 1,272 cf
Outflow = 0.36 cfs @ 12.08 hrs, Volume= 1,272 cf, Atten= 0%, Lag= 0.4 min
Discarded = 0.05 cfs @ 12.08 hrs, Volume= 1,037 cf
Primary = 0.31 cfs @ 12.08 hrs, Volume= 235 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 33.65' @ 12.08 hrs Surf.Area= 163 sf Storage= 142 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 11.4 min (755.1 - 743.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	32.00'	110 cf	**5.00'W x 32.50'L x 2.04'H Field A** 332 cf Overall - 57 cf Embedded = 275 cf x 40.0% Voids
#2A	32.50'	57 cf	**Cultec C-100HD** x 4 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 1 rows
		167 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	32.00'	**8.270 in/hr Exfiltration over Wetted area**
#2	Primary	33.50'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.05 cfs @ 12.08 hrs HW=33.65' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.05 cfs)

Primary OutFlow Max=0.31 cfs @ 12.08 hrs HW=33.65' (Free Discharge)
2=Orifice/Grate (Weir Controls 0.31 cfs @ 1.28 fps)

Pond S1: CULTEC-SYSTEM #1 - Chamber Wizard Field A

Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)
Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf
Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
Row Length Adjustment= +0.50' x 1.86 sf x 1 rows

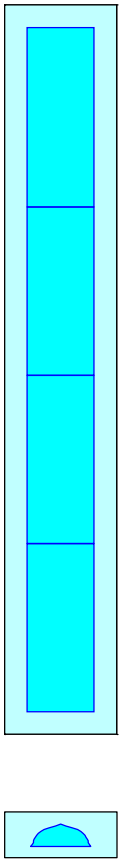
4 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 30.50' Row Length +12.0" End Stone x 2 = 32.50' Base Length
1 Rows x 36.0" Wide + 12.0" Side Stone x 2 = 5.00' Base Width
6.0" Base + 12.5" Chamber Height + 6.0" Cover = 2.04' Field Height

4 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 1 Rows = 56.8 cf Chamber Storage

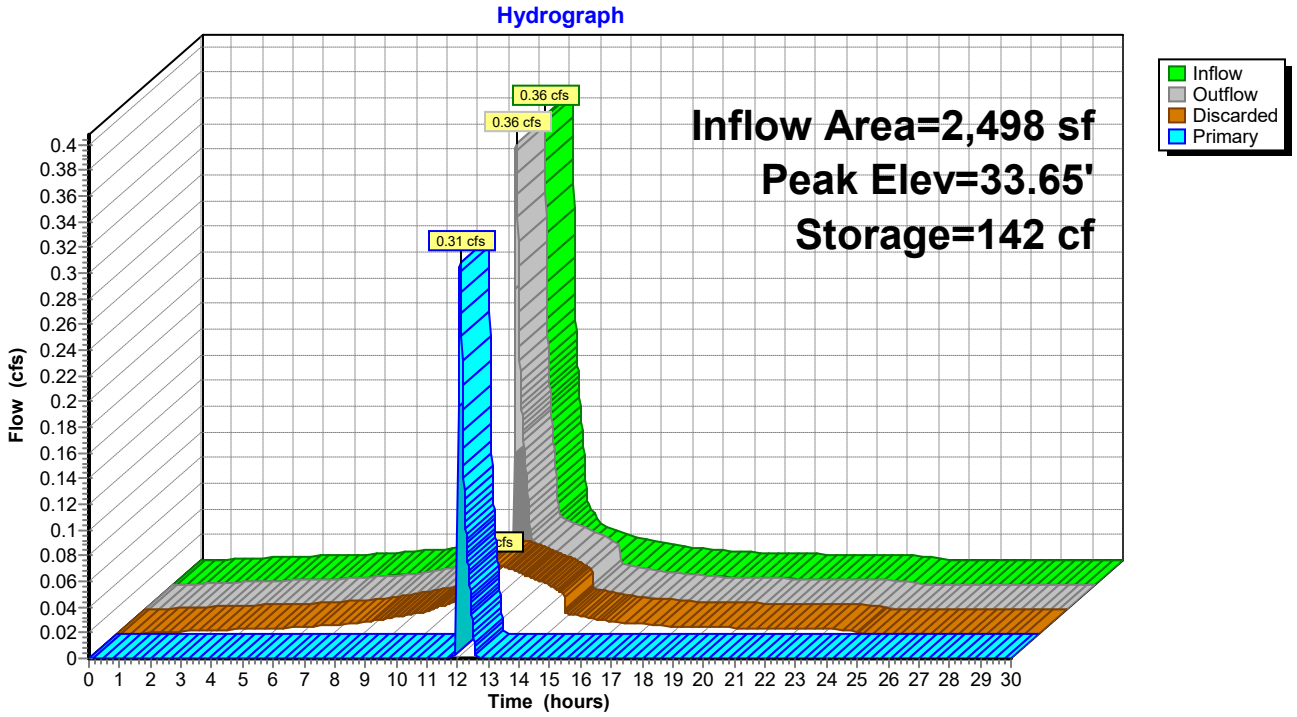
331.8 cf Field - 56.8 cf Chambers = 275.0 cf Stone x 40.0% Voids = 110.0 cf Stone Storage

Chamber Storage + Stone Storage = 166.8 cf = 0.004 af
Overall Storage Efficiency = 50.3%
Overall System Size = 32.50' x 5.00' x 2.04'

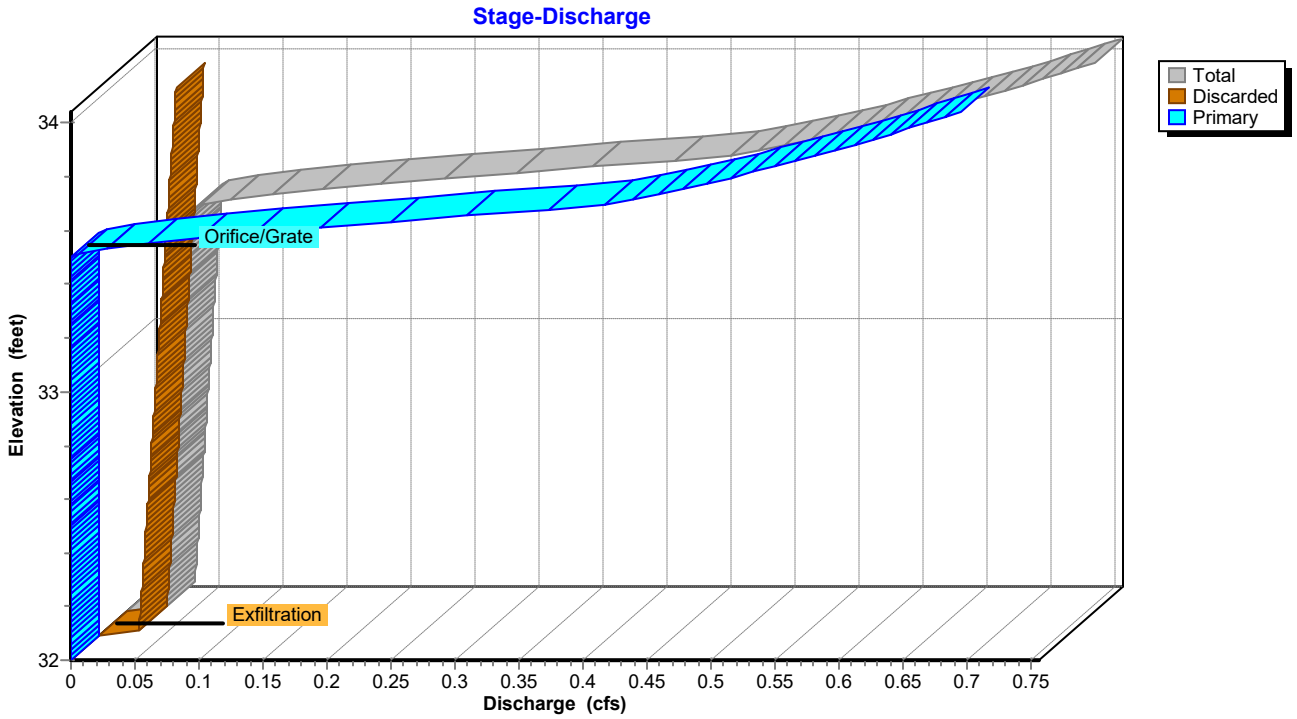
4 Chambers
12.3 cy Field
10.2 cy Stone



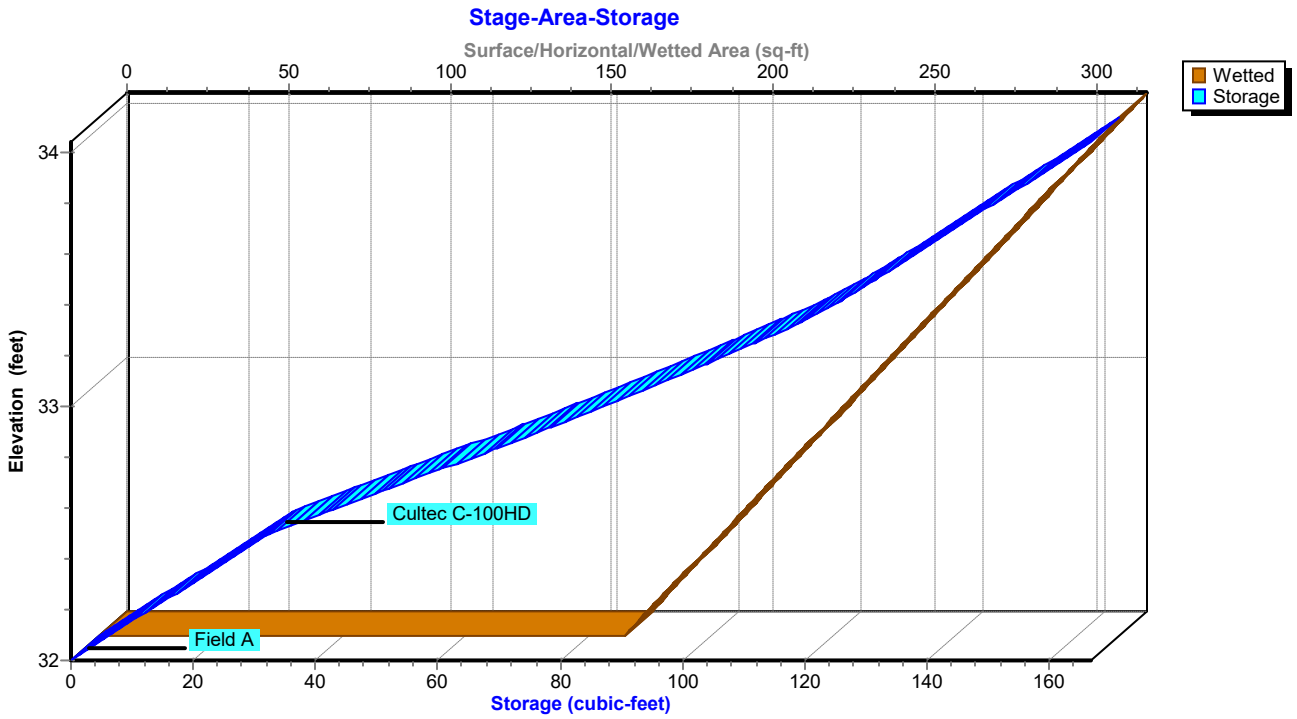
Pond S1: CULTEC-SYSTEM #1



Pond S1: CULTEC-SYSTEM #1



Pond S1: CULTEC-SYSTEM #1

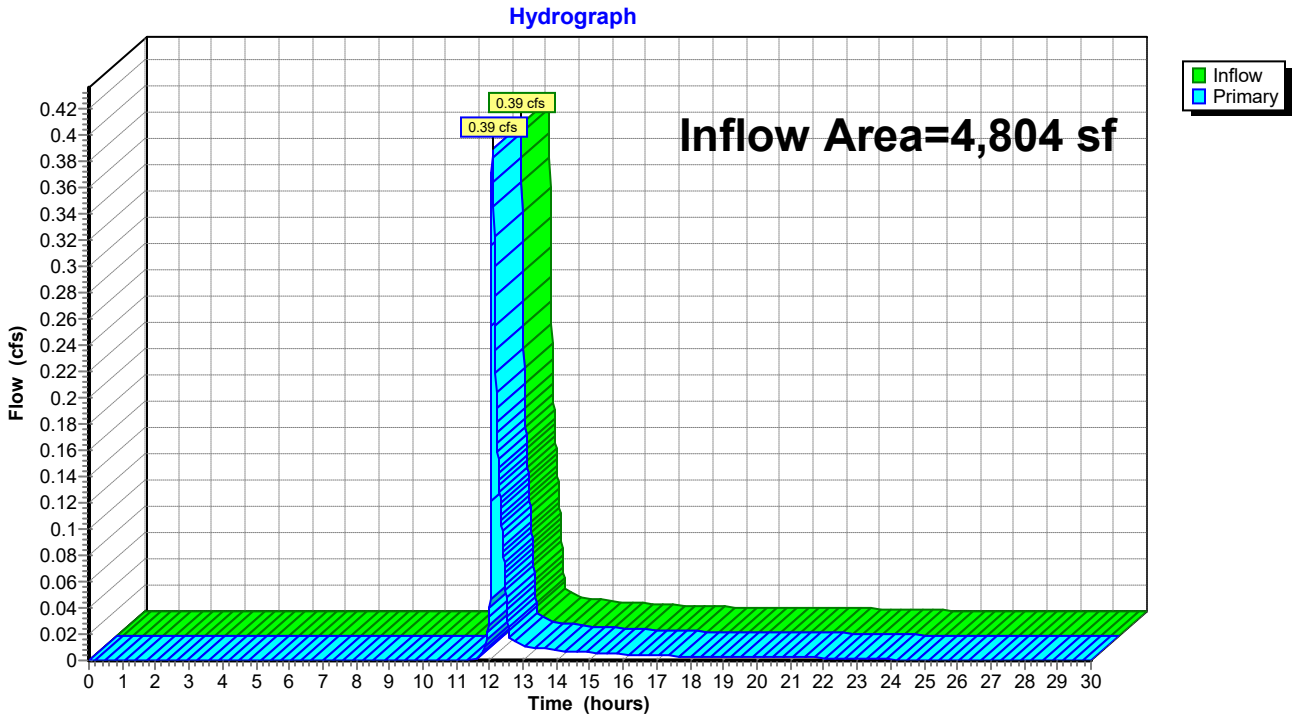


Summary for Link DP: DISCHARGE POINT (STREET)

Inflow Area = 4,804 sf, 62.93% Impervious, Inflow Depth = 1.30" for 25-Year event
Inflow = 0.39 cfs @ 12.08 hrs, Volume= 519 cf
Primary = 0.39 cfs @ 12.08 hrs, Volume= 519 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link DP: DISCHARGE POINT (STREET)



Time span=0.00-30.00 hrs, dt=0.01 hrs, 3001 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment SC1: SC-1 Runoff Area=1,620 sf 100.00% Impervious Runoff Depth=7.92"
Tc=5.0 min CN=98 Runoff=0.31 cfs 1,069 cf

Subcatchment SC2: SC-2 Runoff Area=878 sf 100.00% Impervious Runoff Depth=7.92"
Tc=6.0 min CN=98 Runoff=0.16 cfs 579 cf

Subcatchment SC3: SC-3 Runoff Area=2,306 sf 22.77% Impervious Runoff Depth=2.56"
Tc=5.0 min CN=52 Runoff=0.16 cfs 493 cf

Pond S1: CULTEC-SYSTEM #1 Peak Elev=33.69' Storage=144 cf Inflow=0.47 cfs 1,649 cf
Discarded=0.06 cfs 1,253 cf Primary=0.41 cfs 396 cf Outflow=0.47 cfs 1,649 cf

Link DP: DISCHARGE POINT (STREET) Inflow=0.57 cfs 889 cf
Primary=0.57 cfs 889 cf

Total Runoff Area = 4,804 sf Runoff Volume = 2,142 cf Average Runoff Depth = 5.35"
37.07% Pervious = 1,781 sf 62.93% Impervious = 3,023 sf

Summary for Subcatchment SC1: SC-1

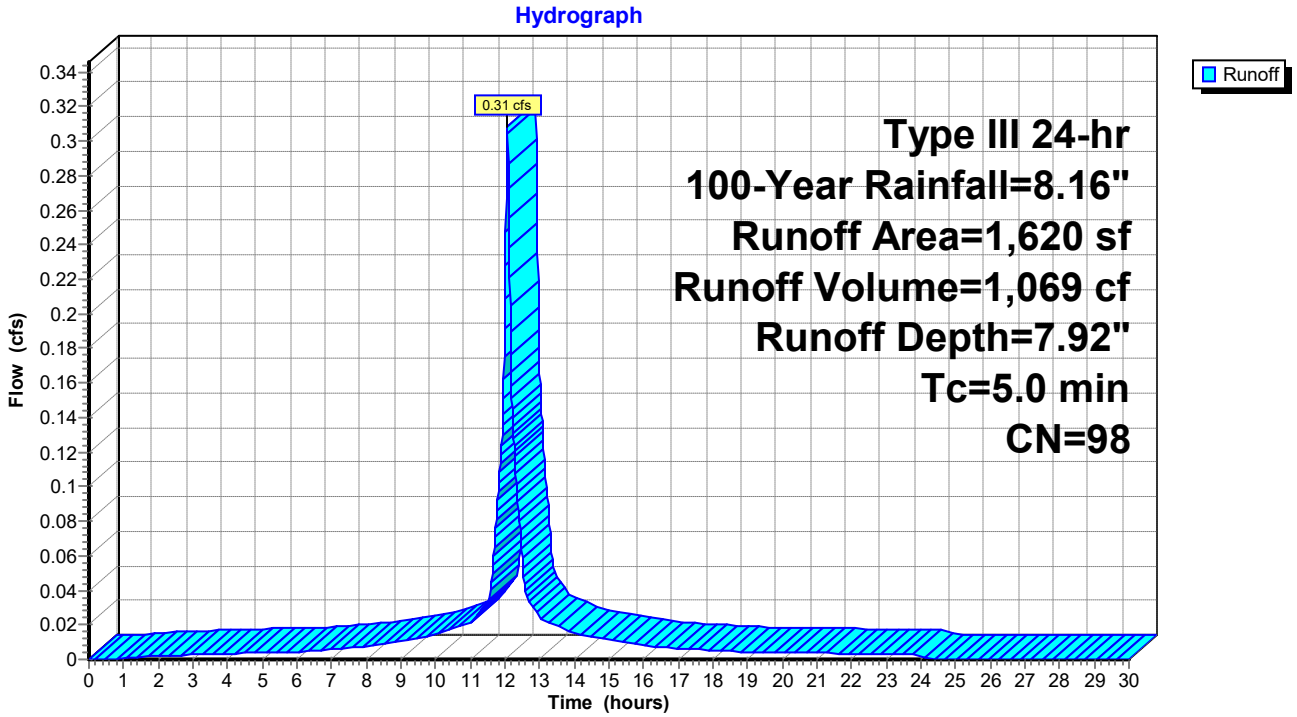
Runoff = 0.31 cfs @ 12.07 hrs, Volume= 1,069 cf, Depth= 7.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.16"

	Area (sf)	CN	Description
*	1,620	98	Roof (Proposed house & Covered Patio)
	1,620		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment SC1: SC-1



Summary for Subcatchment SC2: SC-2

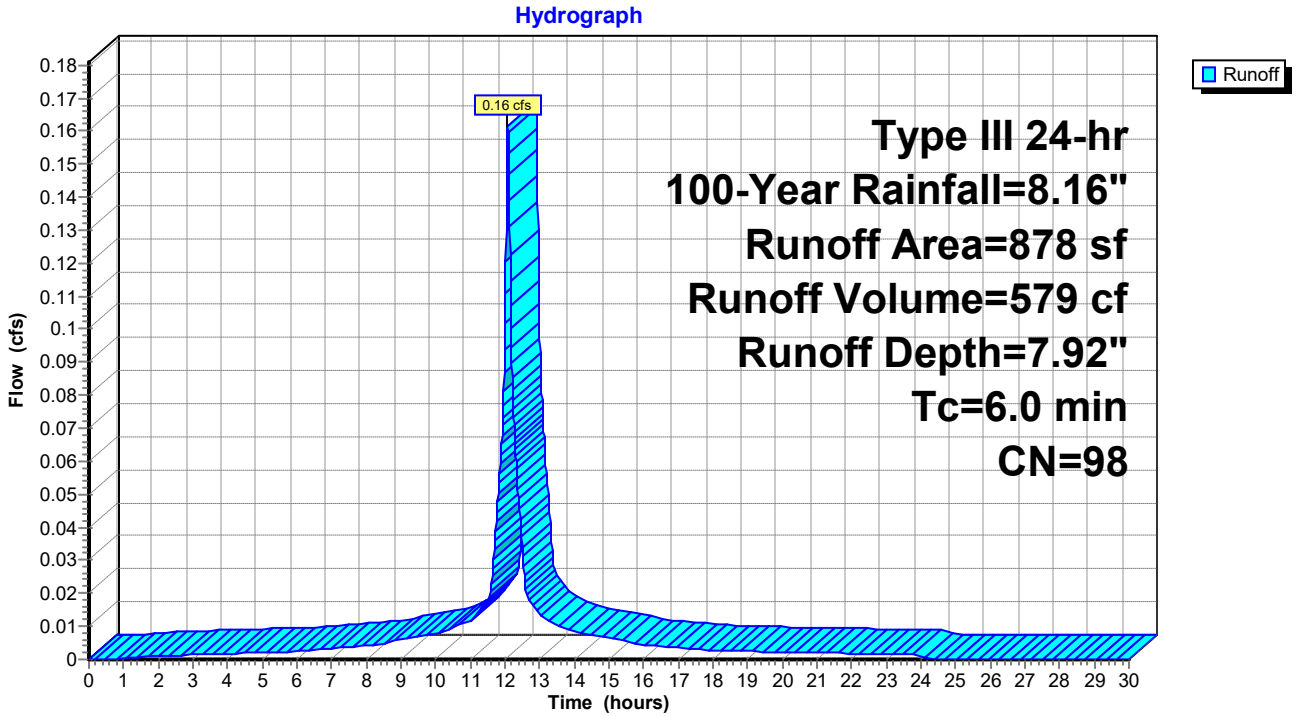
Runoff = 0.16 cfs @ 12.08 hrs, Volume= 579 cf, Depth= 7.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.16"

	Area (sf)	CN	Description
*	878	98	Paved driveway
	878		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment SC2: SC-2



Summary for Subcatchment SC3: SC-3

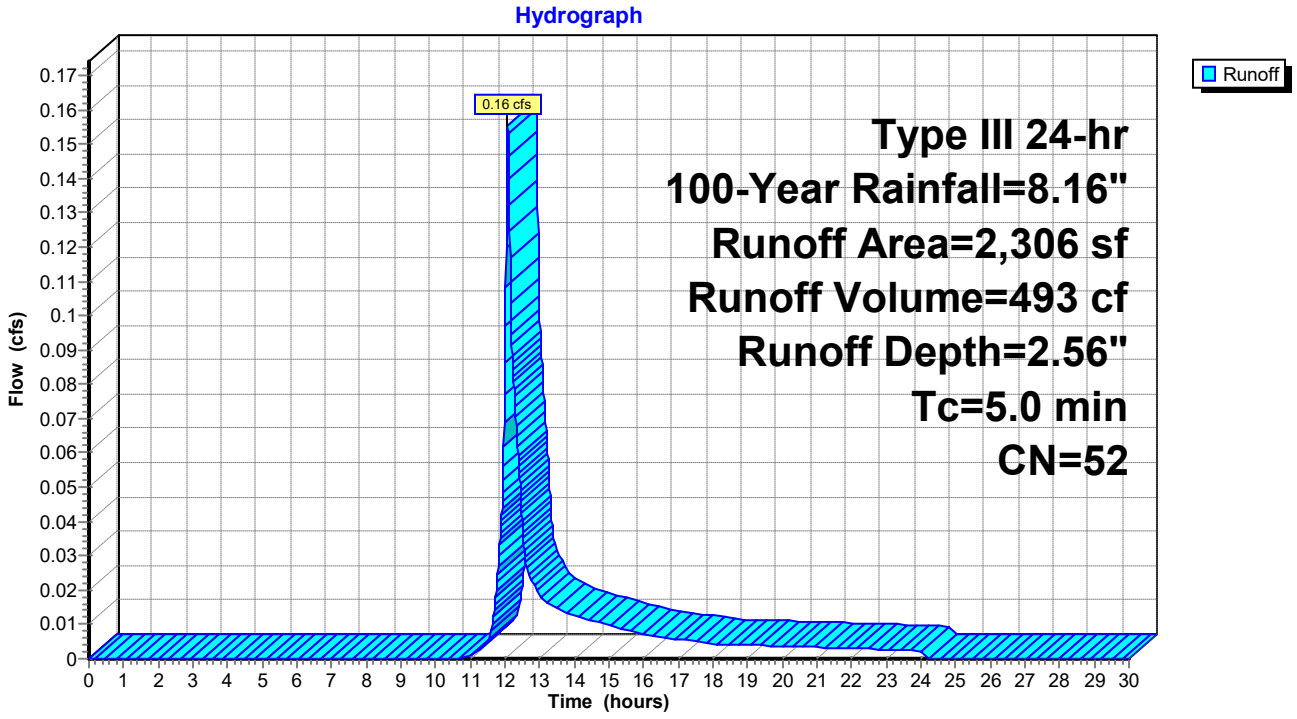
Runoff = 0.16 cfs @ 12.08 hrs, Volume= 493 cf, Depth= 2.56"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=8.16"

	Area (sf)	CN	Description
*	525	98	Walkways, Steps & Landings
	1,781	39	>75% Grass cover, Good, HSG A
	2,306	52	Weighted Average
	1,781		77.23% Pervious Area
	525		22.77% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					**Direct Entry,**

Subcatchment SC3: SC-3



Summary for Pond S1: CULTEC-SYSTEM #1

Inflow Area = 2,498 sf,100.00% Impervious, Inflow Depth = 7.92" for 100-Year event
Inflow = 0.47 cfs @ 12.07 hrs, Volume= 1,649 cf
Outflow = 0.47 cfs @ 12.08 hrs, Volume= 1,649 cf, Atten= 1%, Lag= 0.5 min
Discarded = 0.06 cfs @ 12.08 hrs, Volume= 1,253 cf
Primary = 0.41 cfs @ 12.08 hrs, Volume= 396 cf

Routing by Stor-Ind method, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs / 3
Peak Elev= 33.69' @ 12.08 hrs Surf.Area= 163 sf Storage= 144 cf

Plug-Flow detention time= 11.1 min calculated for 1,648 cf (100% of inflow)
Center-of-Mass det. time= 11.1 min (751.5 - 740.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	32.00'	110 cf	**5.00'W x 32.50'L x 2.04'H Field A** 332 cf Overall - 57 cf Embedded = 275 cf x 40.0% Voids
#2A	32.50'	57 cf	**Cultec C-100HD** x 4 Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 1 rows
		167 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	32.00'	**8.270 in/hr Exfiltration over Wetted area**
#2	Primary	33.50'	**6.0" Horiz. Orifice/Grate** C= 0.600 Limited to weir flow at low heads

Discarded OutFlow Max=0.06 cfs @ 12.08 hrs HW=33.69' (Free Discharge)
1=Exfiltration (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=0.41 cfs @ 12.08 hrs HW=33.69' (Free Discharge)
2=Orifice/Grate (Orifice Controls 0.41 cfs @ 2.10 fps)

Pond S1: CULTEC-SYSTEM #1 - Chamber Wizard Field A

Chamber Model = Cultec C-100HD (Cultec Contactor® 100HD)
Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf
Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap
Row Length Adjustment= +0.50' x 1.86 sf x 1 rows

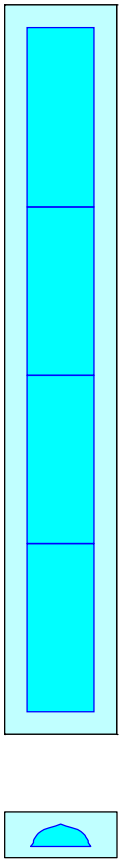
4 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 30.50' Row Length +12.0" End Stone x 2 = 32.50' Base Length
1 Rows x 36.0" Wide + 12.0" Side Stone x 2 = 5.00' Base Width
6.0" Base + 12.5" Chamber Height + 6.0" Cover = 2.04' Field Height

4 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 1 Rows = 56.8 cf Chamber Storage

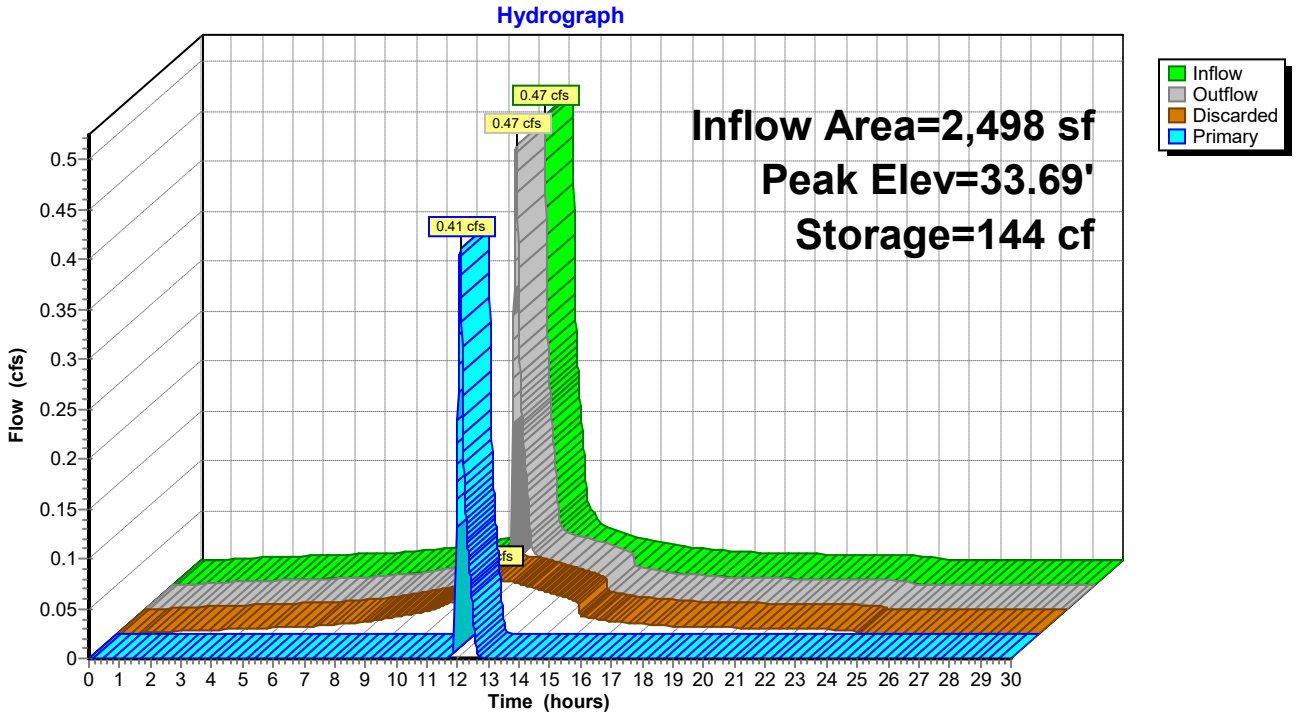
331.8 cf Field - 56.8 cf Chambers = 275.0 cf Stone x 40.0% Voids = 110.0 cf Stone Storage

Chamber Storage + Stone Storage = 166.8 cf = 0.004 af
Overall Storage Efficiency = 50.3%
Overall System Size = 32.50' x 5.00' x 2.04'

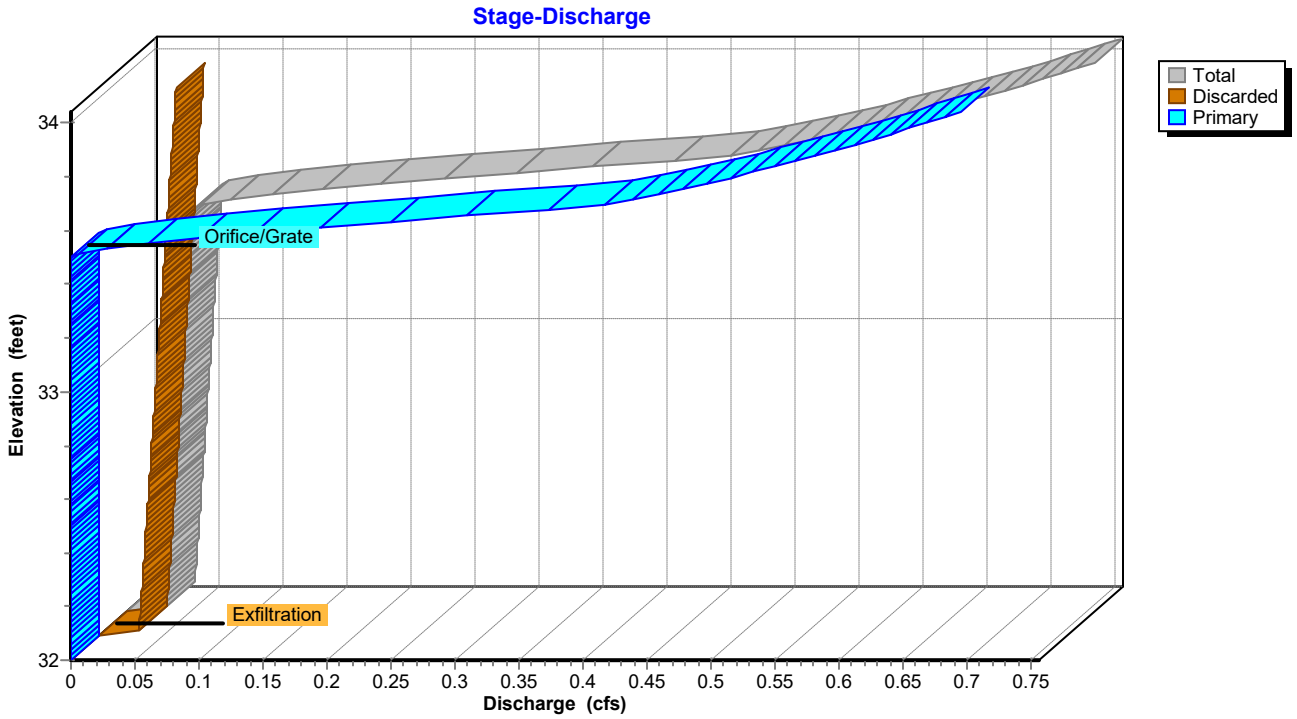
4 Chambers
12.3 cy Field
10.2 cy Stone



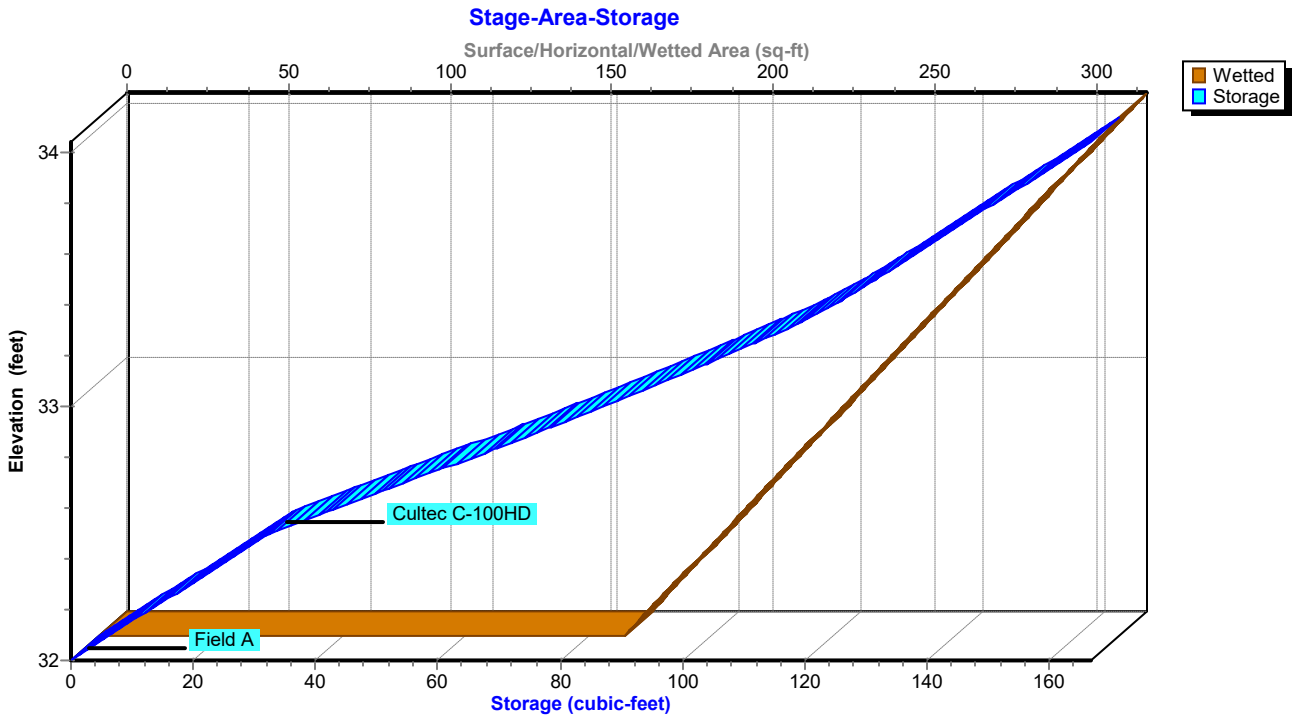
Pond S1: CULTEC-SYSTEM #1



Pond S1: CULTEC-SYSTEM #1



Pond S1: CULTEC-SYSTEM #1

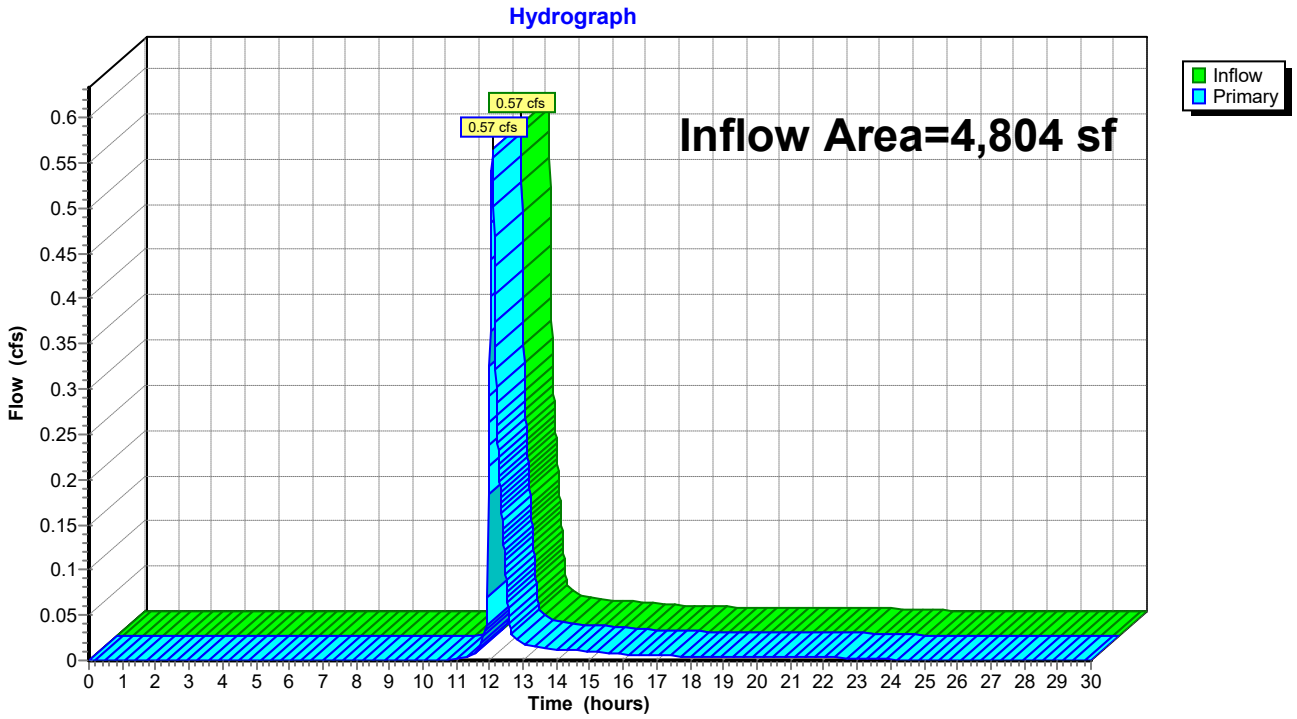


Summary for Link DP: DISCHARGE POINT (STREET)

Inflow Area = 4,804 sf, 62.93% Impervious, Inflow Depth = 2.22" for 100-Year event
Inflow = 0.57 cfs @ 12.08 hrs, Volume= 889 cf
Primary = 0.57 cfs @ 12.08 hrs, Volume= 889 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-30.00 hrs, dt= 0.01 hrs

Link DP: DISCHARGE POINT (STREET)



Appendix B – Soils Information

Soil Map

Map Scale: 1:325 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 4 9 18 27

Feet: 0 15 30 60 90

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Middlesex County, Massachusetts
Survey Area Data: Version 24, Aug 27, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 1, 2023—Sep 1, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
602	Urban land	0.2	100.0%
Totals for Area of Interest		**0.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Middlesex County, Massachusetts

602—Urban land

Map Unit Setting

National map unit symbol: 9950
Elevation: 0 to 3,000 feet
Mean annual precipitation: 32 to 50 inches
Mean annual air temperature: 45 to 50 degrees F
Frost-free period: 110 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Excavated and filled land

Minor Components

Udorthents, wet substratum

Percent of map unit: 5 percent
Hydric soil rating: No

Rock outcrop

Percent of map unit: 5 percent
Landform: Ledges
Landform position (two-dimensional): Summit
Landform position (three-dimensional): Head slope
Down-slope shape: Concave
Across-slope shape: Concave

Udorthents, loamy

Percent of map unit: 5 percent
Hydric soil rating: No

Legal Notice of a Public Hearing, Arlington Redevelopment Board
Docket #3866, 18 Grafton Street

Notice is herewith given that an application has been filed on August 14, 2025, by Albert Azatyants, SA Development Corp, 200F Main St, Box 352, Stoneham, MA 02180, to open Docket #3866 in accordance with the provisions of the Town of Arlington Zoning Bylaw Sections 5.9.3, Site Plan Review. The applicant proposes to demolish an existing single-family dwelling and construct a four-unit residential building on the property located at 18 Grafton Street, Arlington, MA, in the R2 Residential District and Neighborhood Multi-Family Housing Overlay District.

A Public Hearing will be held on Monday, September 8, 2025, at 7:30 pm, Arlington Community Center, Main Hall, 27 Maple Street, Arlington, MA.

Plans may be viewed at the Department of Planning and Community Development on the first floor of the Town Hall Annex, 730 Massachusetts Avenue, Arlington, MA, during office hours (Mon-Wed, 8:00-4:00; Thu, 8:00-7:00; Fri, 8:00-12:00), or at arlingtonma.gov/arb.

Arlington Redevelopment Board
Rachel Zsembery
Chair

8/21/2025, 8/28/2025

Town of Arlington, Massachusetts
Department of Planning and Community Development
730 Massachusetts Avenue, Arlington, Massachusetts 02476

Public Hearing Memorandum

The purpose of this memorandum is to provide the Arlington Redevelopment Board and public with technical information and a planning analysis to ensure compliance with M.G.L c.40A, § 3A

To: Arlington Redevelopment Board
From: Claire V. Ricker, AICP Secretary Ex-Officio
Subject: Site Plan Review, 18 Grafton Street, Docket #3866
Date: September 4, 2025

I. Docket Summary

This is an application by Albert Azatyants, SA Development Corporation, 200F Main Street Box 352, Stoneham, MA 02180 to open Site Plan Review Docket #3866 in accordance with the provisions of the Town of Arlington Zoning Bylaw Section 5.9.3 Site Plan Review.

The applicant proposes to demolish the existing single-family residence and garage to construct a new four-unit multi-family building. The applicant also proposes a driveway with four tandem vehicle parking spaces, and a storage shed with parking for eight bicycles.

Materials submitted for consideration of this application include:

- Application for Site Plan Review, dated August 8, 2025;
- Impact Statement, including LEED Checklist, and letter from applicant regarding LEED certification, dated August 6, 2025;
- Sustainability Analysis, dated August 6, 2025;
- Photographs of existing conditions, dated August 8, 2025;
- Architectural Site Plan of Proposal including Dimensional and Parking Information, dated August 8, 2025;
- Architectural Drawings and Renderings including proposed materials, dated August 8, 2025;
- Rooftop Solar Readiness study, dated August 8, 2025;
- Civil Plan and Details, dated August 1, 2025;
- Erosion Control and Demolition Plan, dated August 1, 2025;
- Proposed Plot Plan, dated August 1, 2025;
- Stormwater Report, dated July 21, 2025.

The subject property is located within the R-2 Residential Two-Family zoning district and the Neighborhood Multi-Family (NMF) Overlay District, which the applicant has elected to apply to this development.

Section 5.9, Multi-Family Housing Overlay Districts, provides a process for the Arlington Redevelopment Board to review and potentially impose reasonable conditions through Site Plan Review for As of Right Development proposals located within a Multi-Family Housing Overlay District. The ARB shall provide Site Plan Review for projects using the Environmental Design Review Standards set forth in Section 3.4.4. of the Zoning Bylaw.

II. Multi-Family Housing Overlay Districts (Arlington Zoning Bylaw Section 5.9.2)

All site plan reviews applicable to developments under Section 5.9 shall be consistent with the purposes of Section 5.9 and with M.G.L. c. 40A, § 3A, and any Compliance Guidelines issued thereunder, as amended. The purposes of the Multi-Family Housing Overlay Districts are:

A. To respond to the local and regional need for housing by enabling development of a variety of housing types,
B. To respond to the local and regional need for affordable housing by allowing for a variety of housing types with affordable housing requirements,
C. To promote multi-family housing near retail services, offices, civic, and personal service uses, thus helping to ensure pedestrian-friendly development by allowing higher density housing in areas that are walkable to shopping and local services,
D. To reduce dependency on automobiles by providing opportunities for upper-story and multi-family housing near public transportation,
E. To encourage environmental and climate protection sensitive development,
F. To encourage economic investment in the redevelopment of properties,
G. To encourage residential uses to provide a customer base for local businesses, and
H. To ensure compliance with M.G.L. c. 40A, § 3A.

III. Site Plan Review/ Environmental Design Standards (Arlington Zoning Bylaw, Sections 5.9.3 and 3.4.4)

1. SPR/EDR-1 Preservation of Landscape

The landscape shall be preserved in its natural state, insofar as practicable, by minimizing tree and soil removal, and any grade changes shall be in keeping with the general appearance of neighboring developed areas.

The applicant is proposing to expand the footprint of the building to be demolished from approximately 1500 square feet to approximately 1725 square feet, an increase of about 15%. As there is no landscape minimum under the NMF Overlay District, the proposed landscape area will be similar to existing conditions, with lawn areas planned for the front and rear yards. The architectural site plan also shows landscape plantings throughout the site in the front and rear yards including at least three trees. Two mature street trees will remain and be protected throughout construction of the project. There will be no substantial changes to the existing grade.

2. SPR/EDR-2 Relation of the Building to the Environment

Proposed development shall be related harmoniously to the terrain and to the use, scale, and architecture of the existing buildings in the vicinity that have functional or visible relationship to the proposed buildings. The Arlington Redevelopment Board may require a modification in massing so as to reduce the effect of shadows on the abutting property in an R0, R1 or R2 district or on public open space.

The subject property is zoned R-2 Residential Two-Family and is within the Neighborhood Multi-Family (NMF) Overlay District on an irregular lot. The neighborhood includes a mix of single, two-, four-, and eight-family properties. The proposed development is consistent with the scale and density of the neighboring properties and maintains the same orientation and relationship to the street as the existing single-family structure. The building incorporates dormers at the third floor, which reflects the architectural context of the adjacent properties. The exterior facade materials and colors are similar to other buildings along the street.

3. SPR/EDR-3 Open Space

All open space (landscaped and usable) shall be so designed as to add to the visual amenities of the vicinity by maximizing its visibility for persons passing by the site or overlooking it from nearby properties. The location and configuration of usable open space shall be so designed as to encourage social interaction, maximize its utility and facilitate maintenance.

The building will be enhanced with porches, plantings, and permeable pavers to maximize visibility for passersby and encourage social interaction. Units 1 and 2 are designed with decks on the front and driveway side elevations. There is no useable open space provided for the two basement units, although there are lawn areas planned for the front and rear of the property which is consistent with the current layout and existing conditions.

4. SPR/EDR-4 Circulation

With respect to vehicular and pedestrian and bicycle circulation, including entrances, ramps, walkways, drives, and parking, special attention shall be given to location and number of access points to the public streets (especially in relation to existing traffic controls and mass transit facilities), width of interior drives and access points, general interior circulation, separation of pedestrian and vehicular traffic, access to community facilities, and arrangement of vehicle parking and bicycle parking areas, including bicycle parking spaces required by Section 6.1.12 that are safe and convenient and, insofar as practicable, do not detract from the use and enjoyment of proposed buildings and structures and the neighboring properties.

The applicant is proposing to access the property via foot, bicycle, and automobile. A walkway is proposed at the rear of the property for access from the parking area to the basement units. The 17.5’ wide driveway provides tandem parking for four vehicles; each will provide connections for electric vehicle charging stations to be installed by the tenant. There will be a bicycle parking shed located at the rear of the driveway which will include covered parking for eight bicycles. There is no provision for indoor bicycle parking.

5. SPR/EDR-5 Surface Water Drainage

Special attention shall be given to proper site surface drainage so that removal of surface waters will not adversely affect neighboring properties or the public storm drainage system. Available Best Management Practices for the site should be employed, and include site planning to minimize impervious surface and reduce clearing and re-grading. Best Management Practices may include erosion control and stormwater treatment by means of swales, filters, plantings, roof gardens, native vegetation, and leaching catch basins. Stormwater should be treated at least minimally on the development site; that which cannot be handled on site shall be removed from all roofs, canopies, paved and pooling areas and carried away in an underground drainage system. Surface water in all paved areas shall be collected in intervals so that it will not obstruct the flow of vehicular or pedestrian traffic and will not create puddles in the paved areas.

In accordance with Section 3.3.4., the Board may require from any applicant, after consultation with the Director of Public Works, security satisfactory to the Board to ensure the maintenance of all stormwater facilities such as catch basins, leaching catch basins, detention basins, swales, etc. within the site. The Board may use funds provided by such security to conduct maintenance that the applicant fails to do.

The Board may adjust in its sole discretion the amount and type of financial security such that it is satisfied that the amount is sufficient to provide for any future maintenance needs.

The applicant has submitted a stormwater report and civil plan for treatment of run-off on site. The applicant will apply best stormwater practices and comply with the Town's Stormwater Management bylaw, during and after construction, as approved by the Town Engineer.

6. SPR/EDR-6 Utilities Service

Electric, telephone, cable TV, and other such lines of equipment shall be underground. The proposed method of sanitary sewage disposal and solid waste disposal from all buildings shall be indicated.

All utilities will be located underground. The water and sewer connections are indicated on the proposed civil plan. A dedicated 2" water line will provide water for the fire suppression system.

7. SPR/EDR-7 Advertising Features

The size, location, design, color, texture, lighting and materials of all permanent signs and outdoor advertising structures or features shall not detract from the use and enjoyment of proposed buildings and structures and the surrounding properties.

As this is a residential project, no permanent signage is proposed. A standard real estate sign will be displayed at the front of the property for building vacancies as necessary.

8. SPR/EDR-8 Special Features

Exposed storage areas, exposed machinery installations, service areas, truck loading areas, utility buildings and structures, and similar accessory areas and structures shall be subject to such setbacks, screen plantings or other screening methods as shall reasonably be required to prevent their being incongruous with the existing or contemplated environment and the surrounding properties.

The applicant proposes a bicycle parking shed with eight bike parking spaces to be located at the rear of the driveway.

9. SPR/EDR-9 Safety

With respect to personal safety, all open and enclosed spaces shall be designed to facilitate building evacuation and maximize accessibility by fire, police and other emergency personnel and equipment. Insofar as practicable, all exterior spaces and interior public and semi-public spaces shall be so designed to minimize the fear and probability of personal harm or injury by increasing the potential surveillance by neighboring residents and passersby of any accident or attempted criminal act.

The interior and exterior of the buildings have been designed to facilitate building evacuation. The building will also include a fire suppression system. The proposed property will provide access to the building for fire, police and other emergency personnel and equipment from Grafton Street.

10. SPR/ EDR-10 Heritage

With respect to Arlington's heritage, removal or disruption of historic, traditional or significant uses, structures or architectural elements shall be minimized insofar as practical whether these exist on the site or on adjacent properties.

The property at 18 Grafton Street is not listed on the *Inventory of Historically or Architecturally Significant Properties in the Town of Arlington*.

11. SPR/EDR-11 Microclimate

With respect to the localized climatic characteristics of a given area, any development which proposes new structures, new hard surface, ground coverage or the installation of machinery which emits heat, vapor or fumes shall endeavor to minimize insofar as practicable, any adverse impacts on light, air and water resources or on noise and temperature levels of the immediate environment.

The total proposed impervious area will be less than existing site conditions, and the addition of new native plantings and trees will have a positive impact on the immediate environment.

12. SPR/EDR-12 Sustainable Building and Site Design

Projects are encouraged to incorporate best practices related to sustainable sites, water efficiency, energy and atmosphere, materials and resources, and indoor environmental quality. Applicants must submit a current Green Building Council Leadership in Energy and Environmental Design (LEED) checklist, appropriate to the type of development, annotated with narrative description that indicates how the LEED performance objectives will be incorporated into the project.

This applicant has completed a LEED checklist and provided a summary of the sustainable practices that will be incorporated into the design of the development. In addition, the development will comply with the Town's Specialized Stretch Energy Code and the Fossil Fuel-Free Bylaw which ensure a maximum level of energy efficiency is achieved.

IV. Findings

1. The project as proposed is not in compliance with dimensional requirements in Section 5.9.4 Development Standards of the Zoning Bylaw.

Town of Arlington, Massachusetts

Correspondence

Summary:
225 Broadway:

- J. Cullinane, 7/17/25
- D. Seltzer, 7/17/25

1500 Mass Ave:

- J. Cullinane, 9/2/25

ATTACHMENTS:

	Type	File Name	Description
🗋	Correspondence	225_Broadway_-_07172025_-_Cullinane__J.pdf	225 Broadway - J. Cullinane, 7/17/25
🗋	Correspondence	225_Broadway_-_07172025_-_Seltzer__D.pdf	225 Broadway - D. Seltzer, 7/17/25
🗋	Correspondence	1500_Mass_Ave_-_09022025_-_Cullinane__J.pdf	1500 Mass Ave - J. Cullinane, 9/2/25

From: Joanne Cullinane
Sent: Thursday, July 17, 2025 10:24 PM
To: Eugene Benson; Kin Lau; Shaina Korman-Houston; Rachel Zsembery; Stephen Revilak; Jennifer Joslyn-Siemiatkoski
Subject: 225 Broadway

Dear Members of the Redevelopment Board:

I am writing with regard to the plans for 225 Broadway in East Arlington.

I was pleased to see the Board asking for stormwater plans. I am very glad that Ms Korman-Houston brought this up. I am also pleased that Mr Benson pointed out that the front lawn space cannot be used for trash and venting belongs on the roof.

There are flaws with the proposed project involving violations of Town Bylaws that render the parking lot design moot, and a need to require changes to the design, even after legal issues are addressed, for the sake of public safety.

Town Bylaw states that the ability to substitute compact spaces for 50% of full-size spaces in mbta overlay projects is governed by section 6.1.11. The portion of the law in question is 6.1.11.C(11), Under 6.1.11.C, which pertains strictly to projects with over five parking spaces. As such, the portion, "The Board of Appeals or Arlington Redevelopment Board, as applicable may grant a special permit *allowing up to 20% of the spaces in a parking lot or garage to be sized for compact cars*" is modified to "*allowing up to 50% of the spaces in a parking lot or garage to be sized for compact cars*," but still subject to the condition that this applies only to lots with five or more spaces.

Compact spaces cannot be substituted in this lot as it is not the right size, and that makes the parking design even less functional than it is in its non-compliant state.

For public safety, reducing this project to a maximum of three units makes sense. Such a change would enable a parking lot configuration where drivers can pull out, not back out, blind, onto Broadway, near a corner and intersection. This would protect the safety of pedestrians and children on what is a main route to school, as well as people in cars and buses traveling along this busy roadway.

With front setbacks reduced from 20 to 15 feet, keep in mind that cars backing out of 225 Broadway would not even have cleared the garage before the rear of the car hits the sidewalk, so attention to these matters is more important than ever. There is no room for error.

Thank you for your attention to these important legal and public safety matters.

Sincerely,

Joanne Cullinane (Owner and former resident, 38 Rawson Road; current TMM Pct 21)

From: Don Seltzer
Sent: Thursday, July 17, 2025 12:06
To: Rachel Zsembery; Kin Lau; Eugene Benson; Stephen Revilak; Shaina Korman-Houston; Disability Comm; Claire Ricker; Michael Ciampa
Subject: Correspondence - 225 Broadway Accessibility

I wish to thank the Board for their site review of 225 Broadway in which important questions were asked, particularly by Mr Lau, regarding compliance with state laws on accessibility. Mr Lau was absolutely correct when he said "I'm giving you a fair warning right now that I don't believe either one of those units are handicap accessible."

Both of the ground floor entry apartments are required to be accessible under state law.

Architect Peter Lewandowski's reply about group 1 ADA requirements for potential accessibility does not make sense. His statements indicate a disturbing lack of knowledge about state code 521 CMR which has been in effect for 30 years.

Mr Lau was similarly spot on with his criticism of the parking arrangement. I have previously discussed the parking requirement with William Joyce, Director of the Massachusetts Architectural Access Board. He stated, "521 CMR 10.3 requires that where parking is provided for the exclusive use of residents, the building owner (or condo association in a condominium complex) must be capable of providing accessible parking to meet the needs of the dwelling unit occupants without structural change."

There are several other serious non-compliance issues with the submitted design, but I will defer comment until the next redesign is submitted for the September 8th hearing.

Ms Korman-Houston also inquired about stormwater mitigation. Mr Lewandowski's reply, "typically we haven't done the calculation yet, but we would see what the impact of the building surface area is", suggests that he is not familiar with Article 15 of the Town of Arlington Stormwater Management Bylaw. I have attached a copy of the Engineering Department Rules and Regulations which must be complied with prior to the issuance of permits from other town authorities, including both Inspectional Services and the ARB. Perhaps this can be forwarded on to Mr Lewandowski?

Thank you for your consideration, and I would be pleased to answer any of your questions,

Don Seltzer

ARLINGTON STORMWATER MANAGEMENT RULES & REGULATIONS
Effective Date: 04/08/2022
Revised: N/A

SECTION 1: AUTHORITY

A. The Rules and Regulations contained herein are in effect in accordance with Article 15 of the Town of Arlington Stormwater Management Bylaw (hereinafter called Article 15).

B. Nothing in these Rules and Regulations is intended to replace or be in derogation of the requirements of the Town of Arlington Wetlands Protection Bylaw, the Town of Arlington Floodplain District Section 5.7 of the Zoning Bylaw, Arlington Inland Wetland District Section 5.8 of the Zoning Bylaw, or any other Bylaw adopted by the Town of Arlington or any Rules and Regulations adopted thereunder. Any project or activity subject to the provisions of the above-cited Bylaws or Rules and Regulations must comply with the specifications of each. In case of conflict, the more stringent provisions shall apply.

C. These Rules and Regulations may be periodically amended by the Engineering Division in accordance with the procedures outlined in Article 15.

D. The Engineering Division may make revisions to the fee schedule presented in Appendix B periodically upon the approval of the Director of Public Works and the Town Manager, and in accordance with Article 15.

E. Waivers. The Engineering Division may waive strict compliance with any of the requirements of Article 15 or the Rules and Regulations promulgated hereunder, if it finds that:

1. Application of some of the requirements is unnecessary or impracticable because of the size or character of the development project or because of the natural conditions at the site;

2. The project is consistent with the purposes and intent of Article 15, and;

3. The project provides substantially the same level of protection to the public health, safety, environment, and general welfare of the Town as required by Article 15.

Any Applicant for a waiver must submit a written request for such a waiver to the Engineering Division. Such a request shall be accompanied by an explanation or documentation supporting the waiver request. The Engineering Division shall provide a written response to any such waiver request within ten (10) business days of receipt of the request. Should the Engineering Division require additional time or information to review a waiver request, a notice shall be provided to the Applicant in writing informing them of the delay and additional information, if any, required. In the event the Applicant fails to provide requested information, the waiver request shall be denied. Applicants may appeal a rejected waiver to the Director of Public Works, who shall provide a written response to any such waiver request within ten (10) business days of receipt of the request. Approval of a waiver from the requirements of Article 15 by the Engineering Division or the Director of Public Works does not constitute a release of the Applicant's responsibility to adhere to the rules and regulations of other permitting authorities.

SECTION 2: PURPOSE

A. The purpose of these regulations is to protect, maintain and enhance the public health, safety, environment, and general welfare by establishing minimum requirements and procedures to control the adverse effects of soil erosion and sedimentation, construction and post-development stormwater runoff, decreased groundwater recharge, and nonpoint source pollution associated

with new development, redevelopment and other land alterations, as more specifically addressed in Article 15.

SECTION 3: DEFINITIONS

A. All definitions are provided in the Article 15 or Appendix A of the Town of Arlington Stormwater Management Rules and Regulations.

SECTION 4: APPLICABILITY

These Rules and Regulations apply to all projects or activities subject to the Applicability section of Article 15. Projects and/or activities subject to Article 15 must obtain a Stormwater Management Permit (SMP) from the Engineering Division or its Designee in accordance with the permit procedures and requirements defined in Sections 5 through 9 and Appendix B of these Rules and Regulations.

No work on a project meeting or exceeding threshold requirements under the jurisdiction of Article 15 may commence without written approval of the Engineering Division or its Designee confirming that the project or activity is in compliance with the Design Standards of these Regulations. If work commences without approval, enforcement action and/or fines may be pursued.

A. Exempt Projects - No Permit Required

Notwithstanding Section 4.B, no permit shall be required by the Engineering Division or its Designee for:

1. Normal maintenance and improvement of land in agricultural use as defined by the Wetlands Protection Act regulation 310 CMR 10.04 and G.L.C. 40A, § 3.

2. Any work or projects for which all necessary approvals and permits, including building permits, have been issued before the effective date of these Rules and Regulations.

3. Projects creating less than 350 square feet of new impervious cover. See Appendix A for definitions. See Sections 4.C. and 4.D. for considerations related to pervious pavers, pervious asphalt, or other pervious materials.

4. Repairing, repaving, or replacing an existing driveway or parking area. See Section 4.C.2. of this section for expansion regulations.

5. Repair or replacement of an existing roof.

6. Normal maintenance of existing lawn, landscaping, or garden areas.

7. Construction of any fence that will not alter existing terrain or drainage patterns.

8. Construction of utilities (gas, water, sanitary sewer, electric, telephone, cable television, etc.) other than drainage that will not alter the site.

9. The maintenance or surfacing of any unpaved public or private way.

10. Such other projects as the Engineering Division or its Designee may find, at its discretion, to meet the standards for a waiver, provided that erosion control measures such as those listed in the Massachusetts Stormwater Management Standards and Technical Handbooks and the Massachusetts Runoff, Erosion and Sediment Control Field Guide are used appropriately and

the project or activity will not result in an increased amount of stormwater runoff or pollutants flowing from a parcel of land and entering a traveled way or adjacent properties.

B. All projects or activities not falling under an exception listed in Section 4.A shall require a Stormwater Management Permit in accordance with Sections 4.C to 4.E.

C. Projects or activities that require a Minor Stormwater Management Permit:

1. Any land alteration, disturbance, development, or redevelopment that results in an increase in impervious area between 350 and 1,000 square feet, except for work that requires a building permit (see Section 4.D. below).

2. The expansion of a driveway, parking area, patio, walkway, or other hardscape with a resultant increase in impervious area between 350 and 1,000 square feet.

3. Any project or activity that results in the installation of between 350 and 1,000 square feet of pervious pavers, pervious asphalt, or other pervious material.

4. Any land alteration, disturbance, development, or redevelopment that would result in an increase in impervious area between 350 and 1,000 square feet but for which pervious pavers, pervious asphalt, or other pervious materials are installed to offset the increase in impervious area to less than 350 square feet, provided the pervious design is approved by the Engineering Division.

D. Projects or activities that require a Major Stormwater Management Permit:

1. Any project or activity effectuating an alteration, disturbance, development, or redevelopment of land that increases impervious area and is ineligible for a Minor Stormwater Management Permit requires a Major Stormwater Management Permit.

2. Any land alteration, disturbance, development, or redevelopment that results in an increase in impervious area of 1,000 square feet or more.

3. Any land alteration, disturbance, development, or redevelopment that results in an increase in impervious area of 350 square feet or more and requires a building permit from Inspectional Services.

4. Any project or activity that that results in the installation of 1,000 square feet or more of pervious pavers, pervious asphalt, or other pervious material.

E. An Emergency Stormwater Permit (ESP) may be issued in cases where a delay or failure to perform work poses an imminent danger to public health or safety. The Engineering Division or their Designee (see Section 6) may, at their sole discretion, issue an ESP. Any person to whom an ESP is issued shall submit the materials described in Sections 5 through 9 and Appendix B of these Rules and Regulations as soon as practical thereafter for review and ratification.

SECTION 5: DESIGN STANDARDS

A. Minor Stormwater Management Permits (mSMPs)

At a minimum all projects subject to a Minor Stormwater Management Permit shall be designed to the following standards:

1. Stormwater management systems requiring minor stormwater permits shall be designed to meet the minimum storage requirements presented in the following table.

Increase in Impervious Area or Pervious Paver/Asphalt/Material Area (s.f.)	Minimum Storage Required (gal.)
350 to 450	440
451 to 550	540
551 to 650	640
651 to 750	730
751 to 850	830
851 to 950	930
950 to 999	980

2. All projects must consider and, unless infeasible, propose and implement Low Impact Development (LID) BMPs listed in the Massachusetts Stormwater Handbook. Applicants shall demonstrate compliance with design standards for LID BMPs through generally accepted methods. LID BMPs should be considered for their impact on overall site climate change resilience, improvements to water quality, and ability to handle water quantity.

3. Pervious pavers, pervious asphalt, or other pervious material projects subject to a Minor Stormwater Management Permit shall be designed so that the installed surface slope is less than 5% and shall only be proposed in locations where the underlying soils have an average infiltration rate of at least 0.17 in/hr. These surfaces will be considered impervious area fo any projects exceeding these standards

4. All projects must include sufficient sediment and erosion controls throughout the duration of the project.

B. Major Stormwater Management Permits (MSMPs)

At a minimum all projects subject to a Major Stormwater Management Permit shall comply with the performance standards of the most recent version of the Massachusetts Stormwater Management Standards and Technical Handbooks, and these Rules and Regulations, with the following differences from the Handbook noted:

1. Stormwater management systems requiring major stormwater permits shall be designed to:

   a) Retain the volume of runoff equivalent to, or greater than, 1.0 inch multiplied by the total post-construction impervious surface area on the redeveloped site, including any directly connected impervious area draining onto the redeveloped site; and

   b) Remove 90% of the average annual load of Total Suspended Solids generated from the impervious area on the site; and

c) Remove 60% of the average annual load of Total Phosphorus (TP) generated from the total area on the site;[1] and

d) Maintain or reduce peak flows from the project area for the 2-, 10-, 25-, and 100-year, 24-hour frequency events.

2. The rainfall amounts used for design and analysis shall be based on the NOAA Atlas 14 Volume 10 Point Precipitation Frequency Estimates for Arlington.

3. All projects must consider and, unless infeasible, propose and implement Low Impact Development (LID) Best Management Practices listed in the Massachusetts Stormwater Handbook. Applicants shall demonstrate compliance with design standards for LID BMPs through generally accepted methods. LID BMPs should be considered for their impact on overall site climate change resilience, improvements to water quality, and ability to handle water quantity.

4. All projects must include sufficient sediment and erosion controls throughout the duration of the project.

SECTION 6: ADMINISTRATION

A. Administration of Rules and Regulations

The Engineering Division shall administer, implement, and enforce these Rules and Regulations, except as otherwise noted. The Engineering Division may designate in writing any authorized Town employee, board, or agent for the purposes of reviewing stormwater submittals and issuing stormwater management permits.

The Applicant shall submit all Stormwater Management Permit Application submittals in compliance with these Rules and Regulations to the Engineering Division.

The Engineering Division will review the submittal for administrative completeness and compliance with the requirements and standards of Sections 5 through 9 and Appendix B of these Rules and Regulations. If the proposed project is administratively complete and complies with these Rules and Regulations, the Engineering Division may grant a Stormwater Management Permit, in addition to any other approval or permit for which they are authorized. The Engineering Division or its Designee shall have authority to enforce Article 15 and these Rules and Regulations. The Engineering Division or its Designee may reject an Application if it is not administratively complete.

B. Right of Entry

Filing an Application for a permit grants the Engineering Division or its Designee permission to enter a project site from the time of Application until a Stormwater Certificate of Compliance is issued as necessary to verify the information in the Application and to inspect the site for compliance with the resulting permit.

[1] The required removal percentages are not required for each storm, it is the average removal over a year that is required. Pollutant removal shall be calculated consistent with EPA Region 1's BMP Performance Extrapolation Tool or other BMP performance evaluation tool provided by EPA Region 1, where available. If EPA Region 1 tools do not address the planned or installed BMP performance any federally or State approved BMP design guidance or performance standards (*e.g.* State stormwater handbooks and design guidance manuals) may be used to calculate BMP performance.

C. Minor Stormwater Management Permit Approval Process

1. The Engineering Division or its Designee shall review the permit Application within ten (10) business days of receipt.

2. The Engineering Division or its Designee shall provide a written response to the Applicant within the review period indicating one of the following:

    (1) Disapprove the Application for being incomplete and require the submission of additional information and/or deny the Permit;

    (2) Approve the Permit Application;

    (3) Approve the Permit Application with conditions, modifications, and/or restrictions that are required to ensure that the project will protect water resources and meet the objectives and requirements of Article 15;

    (4) Deny the Permit Application due to non-compliance with Design Standards or insufficient information to make a determination;

    (5) Determine that a Minor Stormwater Management Permit is inappropriate and require the submission of a Major Stormwater Management Permit.

3. If a Minor Stormwater Management Permit Application is denied, the Applicant may choose to take one of the following actions:

    (1) Make required changes to the Application and resubmit to the Engineering Division. The Application shall be treated as a new submittal upon receipt, and the Engineering Division shall complete the review in accordance with the requirements of Section 6.C.

    (2) Appeal the determination to the Director of Public Works.

    (3) Request a waiver from the Engineering Division as detailed in Section 1, provided the Design Standards cannot be met due to site conditions or the Applicant wishes to propose an alternative design not consistent with the Design Standards.

D. Major Stormwater Management Permit Approval Process

1. The Engineering Division or its Designee shall review the permit Application within fifteen (15) business days of receipt.

2. The Engineering Division or its Designee shall provide a written response to the Applicant within the review period indicating one of the following:

    (1) Disapprove the Application for being incomplete and require the submission of additional information and/or deny the Permit.

    (2) Approve the Permit Application;

    (3) Approve the Permit Application with conditions (see Standard Conditions, Appendix D), modifications, and/or restrictions that are required to ensure that the project will protect water resources and meets the objectives and requirements of Article 15;

(4) Deny the Permit Application due to non-compliance with Design Standards or insufficient information to make a determination.

3. If a Major Stormwater Management Permit Application is denied, the Applicant may choose to take one of the following actions:

(1) Make required changes to the Application and resubmit to the Engineering Division. The Application shall be treated as a new submittal upon receipt, and the Engineering Division shall complete the review in accordance with the requirements of Section 6.D.

(2) Appeal the determination to the Director of Public Works.

(3) Request a waiver from the Engineering Division as detailed in Section 1, provided the Design Standards cannot be met due to site conditions or the Applicant wishes to propose an alternative design not consistent with the Design Standards.

E. Coordinating with Other Permitting Authorities, Jurisdictions, and Regulations

Should a project require a Minor or Major Stormwater Management Permit and also be located within the jurisdiction of another permitting authority such as the Conservation Commission, the Redevelopment Board, the Inspectional Services Department, the Zoning Board of Appeals, or another authority, the Applicant shall obtain approval of the Minor or Major Stormwater Management Permit prior to the issuance of a permit from the other required permitting authority. Should changes be required to stormwater management per the permit conditions issued by another permitting authority, the Engineering Division will not require additional Stormwater Management Permit review and approval, provided the changes to the design and conditions are at least as stringent, if not more so, than those contained in the original Stormwater Management Permit, unless so requested by the other permitting authority. Any such changes shall be reflected in an As-Built Plan to be provided to both the Engineering Division and the other permitting authority at the completion of the project.

F. Deadline for Action

Failure of the Engineering Division or its Designee to take final action upon a Stormwater Management Permit within ten (10) business days of the receipt of a Minor Stormwater Management Application and within fifteen (15) business days of the determination of receipt of a Major Stormwater Management Application shall be deemed to be approval of said Application, unless extension of the deadline date is requested in writing by the Engineering Division prior to the applicable deadline date.

If desired, Applicants shall submit a written Appeal for a Stormwater Management Permit Application that has been denied to the Director of Public Works within thirty (30) business days of the original date of submission of the Stormwater Management Permit Application. The Director of Public Works shall issue a decision within fifteen (15) business days of receipt of the Appeal, unless an extension has been mutually agreed upon in writing by the Applicant and the Director of Public Works.

G. Plan Changes

The Applicant or their Legal Designee must notify the Engineering Division or its Designee, in writing, of any drainage change or alteration in the system authorized in a Stormwater Management Permit before any change or alteration is made. If the Engineering Division or its Designee determines that the change or alteration is significant, based on the Design Standards

in Section 5 and accepted construction practices, the Engineering Division or its Designee may require that an amended Application be filed.

H. Appeals of Actions of the Engineering Division

A final decision by the Engineering Division made under these Rules and Regulations shall be reviewable in a court of competent jurisdiction by an action filed within sixty (60) days thereof, in accordance with M.G.L. Ch. 249. § 4. An appeal of an action by a board, commission, or department that has concurrent regulatory authority for a project and/or activity shall be conducted under the applicable appeal provisions of said board, commission, and/or department of the Town of Arlington. An appeal shall result in suspension of any Permit so appealed as described in these Regulations, until such time as the appeal process of the applicable board, commission, and/or department has been resolved.

I. Project Delay

If the project associated with an approved Stormwater Management Permit granted under Article 15 has not been completed within three (3) years of permit issuance, the Permit shall expire. At the request of the Applicant, the Engineering Division may extend the Permit or require the Applicant to apply for a new permit. Any request for extension shall by submitted to the Engineering Division in writing no later than 30 days prior to the expiration of the Stormwater Management Permit. The Engineering Division may require updates to the project to comply with current regulations and standards as a condition of the permit extension.

J. Project Completion

A Stormwater Management Certificate of Completion (SMCC) is required for completion of Stormwater Management Permits as further detailed in Section 9. The Engineering Division will issue a SMCC upon review and approval of the required documents and/or upon otherwise determining that all work of the permit has been satisfactorily completed in conformance with Article 15.

SECTION 7: INSPECTIONS

A. Construction Commencement

1. Pre-Construction Meeting: The Engineering Division or its Designee may require a pre-construction meeting prior to starting clearing, excavation, construction, or land-disturbing activity by the Applicant. The Applicant's technical representative, the general contractor, or any other person with authority to make changes to the project shall meet with the Engineering Division or its representative to review construction sequencing and the permitted plans and their implementation.

2. Notice of Construction Commencement: The Applicant must notify the Engineering Division two (2) days prior to the commencement of construction. In addition, the Applicant must notify the Engineering Division two (2) days prior to construction of critical components of any stormwater management structural Best Management Practices (BMPs).

3. The Engineering Division may require the submission of periodic inspections and reporting by the Applicant as dictated by site conditions.

4. A copy of the approved and signed plans and permits for a SMP shall be kept on the construction site at all times.

B. Construction Inspections

1. Upon issuance of any Stormwater Management Permit, and until issuance of a SMCC, the Engineering Division shall be granted the right to enter the property per Section 6.D. at reasonable times and in a reasonable manner for the purpose of inspection.

2. The Engineering Division shall require the Applicant or its Designee to schedule the following inspections by the Engineering Division and its Designee, at a minimum:

    a) Stormwater Management System Bottom Excavation Inspection: An inspection may be made of the bottom of excavation for the stormwater management system to insure adequate separation of the stormwater system from groundwater and to confirm the presence of approved soil type.

    b) Stormwater Management System Installation Inspection: An inspection may be made of the completed stormwater management system, prior to backfilling of any underground drainage or stormwater conveyance structures.

C. The Engineering Division shall be provided with a minimum of 24-hours notice prior to the desired inspection time. The Engineering Division shall not be responsible for any project delays related to the Applicant's failure to provide the Engineering Division with appropriate notice.

D. Should the Applicant neglect to schedule the required inspections, the Engineering Division may find the Applicant in violation of the Permit Conditions and require any work completed while in violation to be removed so that the appropriate inspections can be completed.

E. The Engineering Division may waive in-person construction inspections in favor of the Applicant providing construction photos adequately showing the conditions that would be witnessed during an inspection. The decision to waive an inspection is at the sole discretion of the Engineering Division and such decision shall be requested by the Applicant prior to the start of excavation.

F. Notes indicating the required inspections are to be added to the Site Plan(s).

SECTION 8: RECORDKEEPING AND REPORTING REQUIREMENTS

A. Annual inspection and maintenance reports shall be submitted to the Engineering Division by June 1st annually. Inspection reports for stormwater management systems shall include:

1. The date of inspection.

2. Name of inspector.

3. The condition of each BMP, including components such as:

    a) Pretreatment practices or devices.

    b) Vegetation or filter media.

    c) Spillways, valves, or other control structures.

    d) Embankments and slopes.

    e) Inlet and outlet channels and structures.

    f) Underground drainage structures.

g) Sediment and debris accumulation in storage and forebay areas (including catch basins).

h) Any nonstructural practices.

i) Any other item that could affect the proper function of the stormwater management system.

4. Description of the need for maintenance.

5. Observations of any physical changes to system in comparison with the approved as-built plan.

B. The owner(s) of the stormwater management systems shall notify the subsequent owner(s) of the system(s) location, maintenance requirements, and reporting requirements.

SECTION 9: STORMWATER MANAGEMENT CERTIFICATE OF COMPLETION (SMCC)

A. Stormwater Management Certificate of Completion for Minor Stormwater Management Permit

1. The Applicant or their Designee shall submit the following in order to obtain an SMCC for a Minor Stormwater Management Permit:

a. As-Built Site Plan/Sketch, signed and dated by the Applicant, Contractor, or other Designee, showing at a minimum the location of, dimensions of, and swing-ties to the installed stormwater management system and associated observation ports, as well as all newly installed impervious areas and the corresponding as-built increase in impervious area;

b. Statement of Compliance, signed and dated by the Applicant, Contractor, or other Designee, stating that the stormwater management system and impervious areas were constructed in accordance with the approved design package and meet the requirements set forth in Article 15.

c. Written Request for an SMCC.

2. After receipt of the Request for SMCC and prior to the issuance of a SMCC, the Engineering Division may inspect the stormwater management system to confirm its features. If the installed conditions are found to differ from the approved Minor Stormwater Management Permit and/or the As-Built Plan/Sketch, the Engineering Division shall have the right to require corrections or improvements to the as-built system before issuing a SMCC.

3. It is the responsibility of the Applicant to request, in writing, the issuance of a SMCC from the Engineering Division upon completion of the work approved under a Stormwater Management Permit. An Applicant who fails to request an SMCC prior to the expiration of the SMP may be found in noncompliance with Article 15, and face applicable fines for everyday of noncompliance.

B. Stormwater Management Certificate of Completion for Major Stormwater Management Permit

1. The Applicant or their Designee shall submit the following in order to obtain an SMCC for a Major Stormwater Management Permit:

a. As-Built Site Plan, stamped, signed and dated by a Professional Engineer or Land Surveyor licensed in Massachusetts, produced to scale, showing at a minimum the location of, dimensions of, and swing-ties to the installed stormwater management

system and associated observation ports, as well as all impervious areas (buildings, patios, walks, driveways, sheds, etc.) present on the site;

b. Statement of Compliance, stamped, signed and dated by the Design Engineer, stating that the stormwater management system and impervious areas were constructed in accordance with the approved design package and meet the requirements set forth in Article 15.

c. Written request for an SMCC.

2. After receipt of the Request for SMCC and prior to the issuance of a SMCC, the Engineering Division may inspect the stormwater management system to confirm its features. If the installed conditions are found to differ from the approved Major Stormwater Management Permit and/or the As-Built Plan, the Engineering Division shall have the right to require corrections or improvements to the as-built system before issuing a SMCC. Further, a system will be deemed inadequate if issues including, but not limited to, errors in the infiltrative capability, the maximum groundwater elevation, failure to properly define or construct flow paths, or erosive discharges are found. If the system is found to be inadequate by virtue of physical evidence of operational failure, even though it was built as called for in the Stormwater Management Permit, the Engineering Division shall also have the right to require corrections or improvements to the as-built system before issuing a SMCC.

3. It is the responsibility of the Applicant to request, in writing, the issuance of a SMCC from the Engineering Division upon completion of the work approved under a Stormwater Management Permit. An Applicant who fails to request an SMCC prior to the expiration of the SMP may be found in noncompliance with Article 15, and face applicable fines for everyday of noncompliance.

SECTION 10: ENFORCEMENT

The Engineering Division or its Designee may enforce Article 15, Rules and Regulations, orders, permits, violation notices, and enforcement orders, and may pursue all civil and criminal remedies for such violations.

A. Civil relief: If a person violates the provisions of Article 15, these Rules and Regulations or any associated rules and regulations, permit, notice, or order issued there under, the Engineering Division may seek injunctive relief in a court of competent jurisdiction restraining the person.

B. Orders: If the Engineering Division determines that a person has failed to follow the requirements of Article 15, these Rules or Regulations or any other regulatory provision issued hereunder, or any authorization issued pursuant to Article 15 or Rules and Regulations then the Engineering Division may issue a written order to the person to remediate the adverse impact, which may include requirements to:

1. Cease and desist from land-disturbing activity until there is compliance with the Bylaw or provisions of an approved Stormwater Management Permit;

2. Maintain, install or perform additional erosion and sedimentation control measures;

3. Perform monitoring, analyses, and reporting;

4. Remediate erosion and sedimentation resulting directly or indirectly from land-disturbing activity;

5. Comply with requirements of the Stormwater Management Permit for operation and maintenance of stormwater management systems;

6. Remediate adverse impacts resulting directly or indirectly from malfunction of the stormwater management systems; and/or

7. Eliminate discharges, directly or indirectly, into a watercourse or into the waters of the Commonwealth.

C. If the Engineering Division determines that abatement or remediation of pollutants is required, it may issue an order setting forth a deadline for completion of the abatement or remediation. Said order shall further advise that, should the violator or property owner fail to abate or perform remediation within the specified deadline, the Town may, at its option, undertake such work, and expenses thereof shall be charged to the violator or property owner. Within thirty (30) days after completing all measures necessary to abate the violation or to perform remediation, the violator and the property owner will be notified of the costs incurred by the Town, including administrative costs. The violator or property owner may file a written protest objecting to the amount or basis of costs with the Engineering Division within thirty (30) days of receipt of the notification of the costs incurred. If the amount due is not received by the expiration of the time in which to file a protest or within thirty (30) days following a decision of the Engineering Division affirming or reducing the costs, or from a final decision of a court of competent jurisdiction, the cost shall become a special assessment against the property owner of said costs. Interest shall begin to accrue on any unpaid costs at the statutory rate provided in G.L. c.59, § 57 after the 30th day at which the costs first become due.

D. Criminal and Civil Penalties: Any person who violates any provision of the Stormwater Management Bylaw, these Rules and Regulations, or the terms or conditions in any permit or order prescribed or issued there under, may be subject to a fine not to exceed $200 for each day such violation occurs or continues or subject to a civil penalty, which may be assessed in an action brought on behalf of the Town in any court of competent jurisdiction.

E. Noncriminal Disposition: As an alternative to criminal prosecution or civil action, the Town may elect to utilize the noncriminal disposition procedure set forth in M.G.L. c.40, § 21D and § 1-6B of the Town of Arlington General Bylaws, in which case any police officer of the Town of Arlington, the Town Engineer, and such other persons as are authorized by the Engineering Division shall be the enforcing person. The penalty for the first violation shall be a warning. The penalty for the second violation shall be $100. The penalty for the third and subsequent violations shall be $200. Each day or part thereof that such violation occurs or continues shall constitute a separate offense.

F. Entry To Perform Duties Under This Bylaw: To the extent permitted by state law, or if authorized by the owner or other party in control of the property, the Engineering Division, its agents, officers, and employees may enter upon privately owned property for the purpose of performing their duties under Article 15 and these Rules and Regulations and may make or cause to be made such examinations, surveys, or sampling as the Engineering Division deems reasonably necessary.

G. Appeals: The decisions or orders of the Engineering Division shall be final unless appealed to the Director of Public Works successfully. Further relief shall be available only in a court of competent jurisdiction.

H. Remedies Not Exclusive: The remedies listed in Article 15 and these Rules and Regulations are not exclusive of any other remedies available under any applicable federal, state, or local law.

SECTION 13: SEVERABILITY

The invalidity of any section, provision, paragraph, sentence, or clause of these Rules and Regulations shall not invalidate any other section, provision, paragraph, sentence, or clause thereof, nor shall it invalidate any permit or determination that previously has been issued.

END OF ARLINGTON STORMWATER MITIGATION BYLAW RULES AND REGULATIONS

APPENDIX A: DEFINITIONS

The following definitions supplement those included in the Town of Arlington Stormwater Mitigation Bylaw (Article 15)

1. ABUTTER

   For the purpose of Arlington Article 15 and these Rules and Regulations, an abutter is any property owner whose property physically abuts the property upon which work is being proposed.

2. ALTER

   To change the conditions of any area subject to protection by this Bylaw, and shall include but not be limited to one or more of the following actions:

   A. Fill, removal or excavation of soil, sand, gravel or aggregate of any kind;

   B. Changing of pre-existing drainage characteristics, sedimentation patterns, flow patterns, and flood storage retention areas;

   C. The dumping, discharging, or filling with any material which could degrade water quality;

   D. Driving of pilings, erection of buildings or structures of any kind;

   E. Removal, addition, or relocation of an impervious surface of any kind;

   F. Placing of any object or obstruction, whether or not it interferes with the flow of water;

   G. Destruction, extensive trimming, or removal of natural or planted plant life, vegetation, or trees.

3. APPLICANT

   A property owner or agent of a property owner who has filed an Application for a Stormwater Management Permit.

4. CONVEYANCE

   H. Any structure or device, including pipes, drains, culverts, curb breaks, paved swales or man-made swales of all types designed or utilized to move or direct stormwater runoff or existing water flow.

   I. Any impervious surface, including pavement, where surface/sheet flow is utilized to remove rainfall.

5. ARLINGTON DRAINAGE AND STORMWATER DESIGN STANDARDS

   The Drainage and Stormwater Design Standards promulgated by the Department of Public Works of the Town of Arlington.

6. DISTURBANCE

   See “ALTER”.

7. EMERGENCY STORMWATER PERMIT (ESP)

   An Emergency Stormwater Permit may be issued in cases where a delay or failure to perform work poses an imminent danger to public health or safety.

8. EROSION CONTROL

   The prevention or reduction of the movement of soil particles or rock fragments.

9. EROSION CONTROL PLAN

   A plan that shows the location and construction detail(s) of the erosion and sediment reduction controls to be utilized for a construction site.

10. EXISTING LAWN
    Grass area which has been maintained and mowed in the previous two years.

11. FILL
    The placement or deposit of any material that raises, either temporarily or permanently, the elevation of any area subject to the By-Law.

12. FLOODING

    A local and temporary inundation or a rise in the surface of a body of water, such that it covers land not usually under water.

13. GRADING

    Changing the level or shape of the ground surface.

14. GROUNDWATER

    All water beneath any land surface including water in the soil and bedrock beneath water bodies.

15. HOODED CATCH BASIN

    A catch basin that is fitted with an inverted elbow over its outlet pipe or similar structure that is designed to retain oils and other floatables within the catch basin sump and prevent them from flowing into the drainage system.

16. IMPERVIOUS SURFACE

    Any material or structure on, above or below the ground that prevents water from infiltrating through the underlying soil. Impervious surface is defined to include, without limitation: paved surfaces (parking areas, sidewalks, driveways), roof tops, swimming pools and swimming pool decks, patios, and paved, gravel and compacted dirt surfaced roads.

17. NEW DEVELOPMENT

    Any construction or land disturbance of a parcel of land that is currently in a natural vegetated state and does not contain alteration by activities.

18. OWNER

    A person with a legal or equitable interest in a property.

19. PERSON

Any individual, group of individuals, association, partnership, corporation, company, business organization, trust, estate, the Commonwealth or political subdivision thereof to the extent subject to Town Bylaws, administrative agency, public or quasi-public corporation or body, the Town of Arlington, and any other legal entity, its legal representatives, agents, or assigns.

20. PERVIOUS MATERIAL

Soil Types that are listed as Class I, II and III soils as defined in 310 CMR 15.243 and 15.244 based upon the general soil classification used by the U.S. Department of Agriculture and depicted in the Soil Textural Triangle. Decking shall also be considered a pervious material provided one of the aforementioned soil types is located below the decking. "Pervious pavers", "pervious asphalt", and other similar materials will only be considered pervious if a suitable design for the system as a whole is submitted to and approved by the Engineering Division as outlined in Section 4 and Section 5 of these Rules and Regulations. Otherwise these materials will be considered impervious.

21. POINT SOURCE

Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, or container from which pollutants are or may be discharged.

22. RESOURCE AREA

Any area protected under including without limitation: the Massachusetts Wetlands Protection Act, Massachusetts Rivers Act, or Town of Arlington Wetlands Protection Bylaw.

23. SEDIMENTATION

A process of depositing material that has been suspended and transported in water.

24. SLOPE

The incline of a ground surface expressed as a ratio of horizontal distance to vertical distance (*e.g.* a 4:1 slope). It can also be expressed as a percentage of the vertical rise divided by the horizontal distance (*e.g.* a twenty-five (25) percent slope).

25. STORMWATER MANAGEMENT CERTIFICATE OF COMPETION (SMCC)

A document issued by the Engineering Division after all construction activities have been completed which states that all conditions of an issued Stormwater Management Permit (SMP) have been met and that a project has been completed in compliance with the conditions set forth in a SMP.

APPENDIX B: APPLICATION PROCEDURES FOR STORMWATER MANAGEMENT PERMITS

Applications for a Stormwater Management Permit (SMP) shall include the materials as specified in this section. Incomplete applications shall not be considered by the Engineering Division or its Designee. The Engineering Division or its Designee shall not be responsible for any project delays related to the receipt of an incomplete application.

A. Fees: The Engineering Division or its Designee shall obtain with each submission an Application fee to be collected at the time of Application according to the Fee Schedule. After-the-fact Applications shall submit fees at triple the rate set in the Fee Schedule.

PERMIT TYPE	FEE
Minor Stormwater Management Permit	$100
Major Stormwater Management Permit	$300

B. Signature: The Applicant must sign the Application.

C. Minor Permit Submission Requirements

One (1) hard copy of the original Minor Stormwater Management Permit Application, including all applicable submittal items, shall be submitted to the Engineering Division. An electronic copy (pdf) of all Minor Stormwater Management Permits and applicable submittal items shall also be submitted to the Engineering Division by email to engineering@town.arlington.ma.us. The submitted applications shall adhere to the following requirements:

1. One (1) completed Minor Stormwater Management Permit Application Form with the following:

    a) Name, contact information, and original signatures of owner(s), Applicant(s), and, if applicable, representative.

    b) Address of property as well as assessor map and parcel ID.

    c) Project description.

    d) Site plan reference(s).

    e) Operation and Maintenance (O&M) Plan.

2. Payment of the Application and review fees.

3. A Stormwater Management Site Plan that may be prepared by drafting or hand sketching. Required elements, depending on site-specific conditions, might at the discretion of the Engineering Division, include:

    a) General Information

        (1) Title.

        (2) Date.

(3) Name and address of record owner and if applicable the name, address, and telephone number of the engineer or surveyor.

(4) When prepared by a professional, plans shall be stamped by a Registered Professional Engineer, Professional Land Surveyor, or other recognized professional acceptable to the Engineering Division.

(b) Existing Conditions

(1) The site's existing topography with approximate contours at 2 foot intervals for the work area.

(2) Locations of existing buildings, driveways, walls, etc.

(3) Locations of soil tests including test pits, borings, groundwater determinations, and percolation tests with the soil logs and percolation testing results, and/or other soil testing procedures, when available. The infiltration rate of underlying soils must be provided when pervious pavers, pervious asphalt, or other pervious materials are proposed.

(c) Proposed Conditions

(1) Proposed grading plan for work area, including the surface slope of any pervious pavers, pervious asphalt, or other pervious materials.

(2) Proposed improvements including location of structures, impervious surfaces, utilities, and easements, if applicable.

(3) Locations of all erosion and sedimentation control measures and BMPs.

(4) Construction details for all erosion and sedimentation controls proposed to be utilized.

(5) For engineered systems designed to provide drainage or stormwater management including, but not limited to, culverts, drainage outfalls, catch basins and pervious pavement provide an appropriate plan detail, along with an Operation and Maintenance plan required to maintain the design element.

4. Any other information requested by the Engineering Division.

D. Major Permit Submission Requirements

One (1) hard copy of the original Major Stormwater Management Permit Application, including all applicable submittal items, shall be submitted to the Engineering Division. An electronic copy (pdf) of all Minor Stormwater Management Permits and applicable submittal items shall also be submitted to the Engineering Division by email to engineering@town.arlington.ma.us. The submitted applications shall adhere to the following requirements.

1. One (1) completed Major Stormwater Management Permit Application Form with the following:

a) Name and contact information, of owner(s), Applicant(s), and, if applicable, representative.

b) Address of property as well as assessor map and parcel ID.

c) A brief project description.

d) Site plan reference(s).

e) Operation and Maintenance (O&M) Plan.

2. Payment of the Application and review fees.

3. A Project Narrative that includes a description of the proposed project and a description of how and where stormwater will be controlled and erosion and sedimentation controls implemented, and an explanation of why the Applicant believes the plans

   a) Meet the Design Standards enumerated in Section 5;

   b) Employ, to the maximum extent practicable, environmentally sensitive site design as outlined in the Massachusetts Stormwater Handbook[2];

   c) Attempt to reproduce natural hydrologic conditions with respect to groundwater and surface water[3];

   d) Include square footage summaries indicating square footage of limit of work as well as existing, proposed and net changes in impervious surface areas.

4. A Stormwater Management Site Plan prepared as follows:

   a) General Information:

      (1) Sheet size: Sheets shall have a maximum dimension of 24" x 36" and a minimum dimension of 11" x 17".

      (2) Scale: Not more than 1" = 50'. If project sites are large, an overall site plan at 1" = 100' is acceptable, but detailed plans must be at or less than 1" = 50'. Include graphical scales on all plans. Coordinate system shall be 1983 North American Datum, Massachusetts State Plane, feet, and North American Vertical Datum (NAVD) of 1988.

      (3) Title Block: A title block shall be included on all plans, located at the lower right hand corner, oriented to be read from the bottom when bound at the left margin. Include:

         (a) Plan title.
         (b) Original date plus additional space to reference the title and dates of all plan revisions.
         (c) Name and address of record owner and engineer and/or surveyor.
         (d) Address of property, Assessor Map and Parcel ID.

      (4) Legend: Include legend identifying line types and symbols used in plan set

      (5) Locus Map.

[2] Massachusetts Stormwater Handbook, as updated February 2008. http://www.mass.gov/eea/agencies/massdep/water/regulations/massachusetts-stormwater-handbook.html

[3] Guidance on these practices is provided in Appendix C of these Regulations and the MA Stormwater Management Handbook.

b) An Existing Conditions Plan containing the following:

1) Property lines.

2) The existing zoning, and land use at the site and abutting properties.

3) The location(s) of existing easements.

4) The location of existing utilities (water, sewer, natural gas, etc.).

5) Existing contours at 2-foot minimum vertical increments. Spot grades for proposed conditions are required when 2-foot contour intervals do not provide sufficient detail to show stormwater flow path and /or more specific detail is needed to demonstrate stormwater flow path.

6) Existing landscaping and vegetation including all existing trees within 25 feet of the work area that are over 6 inches in diameter breast height (dbh) and major vegetative cover types, including wooded areas defined by tree line drip line, shrub communities, limits of lawn, and edge of tree canopy.

7) Locations of existing structures, pipes, swales and detention ponds.

8) Locations of bodies of water, including wetlands.

9) A delineation of FEMA Special Flood Hazard areas and calculation of FEMA flood elevation, if applicable. Floodplain elevation data shall be based on 1988 NAVD (North American Vertical Datum) and reference the appropriate National Flood Insurance Rate Map and/or Flood Study.

10) Delineation of other relevant areas of concern, including but not limited to wetlands, Wetlands Buffers, Riverfront Areas, Endangered Species Habitat, and Natural Heritage and Endangered Species Program (NHESP) Vernal Pools.

11) Location of existing septic systems and private wells, if present.

12) The location(s) of soil tests and description of soil from test pits performed at the location of proposed stormwater management facilities, including but not limited to soil description, depth to seasonal high groundwater, depth to bedrock, and percolation rates. Soils information shall be based on site test pits logged by a Massachusetts Registered Soil Evaluator.

13) The existing vegetation and ground surfaces with runoff coefficients for each.

14) Stamp and signature of a Professional Engineer (PE) licensed in the Commonwealth of Massachusetts or Professional Land Surveyor (PLS).

4. A Proposed Conditions Plan containing the following:

a) Property lines, building envelope restrictions and/or easement areas, including areas affected by conservation restrictions, if applicable.

a) Proposed improvements including location of buildings or other structures, utilities, easements, etc., if applicable, and impervious surfaces. For single family homes plans shall show, at a minimum, house footprint, decks, garages, sheds, sewage disposal

systems, roof drainage and stormwater drainage structures, as applicable, and all areas of existing and proposed impervious areas including tennis courts, patios, driveways, etc.

c) FEMA Special Flood Hazard areas, if applicable.

d) Proposed erosion controls and materials to be used (i.e. straw bales, silt fence and straw wattles, compost filter mitts, etc.) must be indicated on the plan. In projects anticipated to encounter or manage groundwater, provide dewatering contingency plans, details and location(s). Hay bales may not be used as these have been found to introduce invasive species.

e) Limit of work.

f) Proposed grading for work area. Proposed contours at 2-foot minimum vertical increments. Spot grades for proposed conditions are required when 2-foot contour intervals do not provide sufficient detail to show stormwater flow path and /or more specific detail is needed to demonstrate stormwater flow path.

g) Locations for storage of materials, equipment, soil, snow and other potential pollutants.

h) Location(s) and description of existing stormwater conveyances, impoundments, wetlands, drinking water resource areas, or other critical environmental resource areas on or adjacent to the site or into which stormwater flows.

i) Proposed drainage facilities (plan view and details) including drawings of all components of the proposed stormwater management system including:

   (1) Locations, cross sections, and profiles of all brooks, streams, drainage swales and their method of stabilization.

   (2) All measures for the detention, retention or infiltration of water.

   (3) All measures for the protection of water quality.

   (4) For engineered systems designed to provide drainage or stormwater management including, but not limited to, culverts, drainage outfalls, catch basins and pervious pavement ‘systems’; provide an appropriate plan detail with notes on drawings specifying materials to be used, and construction specifications.

   (5) Notes indicating the required inspections for the site and the stormwater drainage facilities during construction.

i) Proposed landscaping, vegetation and ground surfaces with runoff coefficients for each. Proposed tree removal/plantings and landscaping activities shall be completed in accordance with the requirements of the Department of Public Works and/ or the Conservation Commission as applicable.

k) Locations where stormwater discharges to surface water (include all roads, drains and other structures that could carry stormwater to a wetland or other water body, on or offsite).

l) A general construction note that states the Engineering Division shall be notified prior to work in accordance with project permits.

m) Stamp and signature of a Professional Engineer (PE) licensed in the Commonwealth of Massachusetts to certify that the Stormwater Management Plan is in accordance with the criteria established in the Stormwater Regulations; a stamp and signature of a Professional Land Surveyor (PLS) is acceptable if no drainage facilities are proposed and they have the experience and capability to prepare the required Site Plan and to provide the required existing and proposed grading and erosion control provisions.

5. A Stormwater Management Plan Report shall be prepared in conformance with the Design Standards contained in Section 5 and contain the following elements:

a) Description of the existing site hydrology.

b) A drainage area map showing pre- and post-construction watershed boundaries, drainage area and stormwater time of concentration (Tc) flow paths, including drainage system flows.

c) Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms specified in this Regulation. Such calculations shall include:

(1) Description of the design storm frequency, intensity and duration.

(2) Time of concentration.

(3) Soil Runoff Curve Number (CN) based on land use and soil hydrologic group.

(4) Peak runoff rates and total runoff volumes for each watershed area.

(5) Information on construction measures used to maintain the infiltration capacity of the soil where any kind of infiltration is proposed.

(6) Infiltration rates, where applicable.

(7) Culvert capacities.

(8) Flow velocities.

(9) Data on the increase in rate and volume of runoff for the specified design storms.

(10) Documentation of sources for all computation methods and field test results.

l) If a project requires a Stormwater Pollution Prevention Plan (SWPPP) per the NPDES General Permit for Storm Water Discharges from Construction Activities (applicable to construction sites that disturb one or more acres of land), then the Applicant is required to submit a complete copy of the SWPPP (including the signed Notice of Intent and approval letter) as part of its Application for a SMP.

7. Post Construction Operation and Maintenance Plan (O&M)

a) The Post-Construction O&M Plan shall be included that shall be designed to ensure compliance with the Permit, Article 15 and these Rules and Regulations and that the Massachusetts Surface Water Quality Standards, 314, CMR 4.00 are met in all seasons and throughout the life of the system. The O&M Plan shall be a stand-alone document, and shall remain on file with the Engineering Division and shall be an ongoing

requirement. The O&M Plan shall apply to the entire project site, not just the disturbance area.

b) The Post-Construction O&M Plan shall include, at a minimum:

(1) The name(s) of the owner(s) for all components of the system and emergency contact information.

(2) The signature(s) of the owner(s).

(3) The names and addresses of the person(s) currently responsible for O&M. If O&M responsibility is contracted to a third party; a copy of the maintenance agreement(s) must be provided. If the responsible party is not the owner of the property where the BMP is located then a copy of the legal instrument that establishes the terms of and legal responsibility for the O&M of the project site BMPs as well as a plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions must be included.

(4) An Inspection and Maintenance Schedule for all stormwater management facilities including routine and non-routine maintenance tasks to be performed.

(5) A reduced size plan or map clearly showing the location of the systems and facilities including easements, catch basins, manholes/access lids, main, and stormwater devices.

(6) If applicable, a list of easements necessary for the construction and O&M of the stormwater system, with the purpose and location of each. Easements shall be recorded with the Middlesex South County Registry of Deeds prior to issuance of a Stormwater Management Certificate of Compliance by the Engineering Division.

(7) Estimated annual O&M budget.

(8) O&M inspection schedule and log form.

(9) The final O&M Plan shall be signed by the property owner and shall be provided at the time of sale/property transfer to any subsequent property owners to ensure that the transfer of responsibilities is understood by future owners.

(10) Provisions for the Engineering Division or its Designee to enter the property at reasonable times and in a reasonable manner for the purpose of inspection.

APPENDIX C: STANDARD CONDITIONS FOR STORMWATER MANAGEMENT PERMITS

Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Permit.

1. This Permit does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.

2. This Permit does not relieve the Applicant or any other person of the necessity of complying with all other applicable federal, state or local statutes, ordinances, by-laws or regulations.

3. The work authorized hereunder shall be completed within three years from the date of this Permit unless the time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance and both that date and the special circumstances warranting the extended time period are set forth in this Permit.

4. This Permit may be extended by the issuing authority for one or more periods of up to three years each upon Application to the issuing authority at least 30 days prior to the expiration date of the Permit.

5. No work shall be undertaken until all appeal periods from this Permit have elapsed or, if such an appeal has been filed, until all proceedings before the Court have been completed.

6. A copy of the Approved Permit shall be kept on-site at all times during construction. All contractors and subcontractors engaged during construction shall be provided with a copy of this Permit and all supporting documents before commencing work.

7. The Applicant shall provide the Engineering Division a forty-eight (48) hour notice, in writing, before starting any work authorized or required by this Permit.

8. Prior to the start of work, the Applicant shall install erosion and sedimentation controls in accordance with approved design.

9. After installation of erosion and sedimentation controls, but prior to the conduct of any other site work authorized or required by this Permit, the Applicant shall contact the Engineering Division to determine if a pre-construction meeting will be required. Should a pre-construction meeting be required, the Applicant, and the person and/or contractor engaged to install the stormwater management system shall be present to insure that all aspects of the Permit are fully understood, particularly the necessity to install the system in accordance with the approved design details.

10. Accepted engineering and construction industry standards of workmanship, materials, and procedures shall be followed to the completion of the project in a proper, substantial, and workman-like manner. Engineering and construction shall be provided in a manner consistent with the level of care and skill ordinarily exercised by those providing services under similar circumstances, and all work must abide by all current Federal, State, and Local regulations and codes regarding engineering and construction.

11. In the event of any spill of hazardous materials (including gasoline, fuel oils, lubricants and hydraulic fluids), the Arlington Fire Department (781-316-3800), the DEP's Spill Response Unit (617-556-1133), the Arlington Board of Health (781-316-3170), the Arlington Conservation Commission Office (781-316-3012), and the Arlington Engineering Division (781-316-3320) shall be contacted immediately.

12. The Contractor shall clean up at least daily, all refuse, rubbish, scrap and surplus materials, debris, and unneeded construction equipment resulting from the construction operations. The site of the work and the adjacent areas shall be kept in a neat and orderly condition. Sediments that might be deposited on streets adjacent to the site shall be swept up daily.

13. Any fill used in connection with this project shall be clean fill, containing no trash, refuse, rubbish or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles or parts of any of the foregoing.

14. All loam to be used in the landscaped areas of the site shall be from sources certified to be free from weed seeds, especially those of invasive species.

15. All excavated earth material not used during the course of this project and all construction waste and debris shall be removed from the site and disposed of in accordance with applicable regulations.

16. The Applicant shall immediately control any erosion problems that occur on-site, and shall notify the Engineering Division of said problems. If any erosion problems occur it may become necessary to install additional erosion and sedimentation controls in association with this project.

17. Following completion of work, the Applicant shall request, in writing, that a Stormwater Management Certificate of Completion be issued. The request shall state that stormwater management system has been satisfactorily installed and the site has been adequately stabilized.

18. After completion of construction, fertilizers utilized for landscaping and/or lawn care shall be organic in nature and of the low phosphorus content variety. Fertilizers shall be used in moderation. The use of fertilizers containing ammonium nitrate or ammonium phosphate is prohibited.

19. The owners of the project and their successors in title, in the event they proceed to alter areas subject to the Engineering Division's jurisdiction under this Permit, agree that the Town of Arlington shall have no responsibility to maintain the proposed drainage system and that said Town shall not be liable for any damages in the event of failure. By acceptance of this Permit, the owners indemnify and hold harmless the Town of Arlington and its residents for any damages attributable to alterations undertaken on this property pursuant to this Permit. Issuance of this Permit does not in any way imply or certify that the site or downstream areas will not be subject to flooding, storm damage, or any other form of water damage.

From: Joanne Cullinane
Sent: Tuesday, September 2, 2025 11:37 AM
To: Rachel Zsembery; Eugene Benson; Kin Lau; Shaina Korman-Houston; Ashley Maher; Stephen Revilak
Subject: 1500 Mass Ave violations

Dear members of the Redevelopment Board,

I am writing because I've followed discussions surrounding 1500 Mass Ave for some time and I see the developers have posted "For Rent" signs even though they have not complied with the ARB's requests, or corrected for earlier violations of the law regarding accessibility, trees, and stormwater.

There is no equal access to parking for the accessible unit. Did the state grant a waiver for that violation?

As photos (below) show, the windows in the accessible unit belatedly carved out of the commercial space have not yet been swapped out for something that is appropriate for a residence. Residences require some degree of privacy, which everyone else in the building is afforded. For this unit, passersby can see the entire unit as they walk by and can also see into the unit from the sidewalk on the alleyway side whenever the door opens. Unless the resident keeps floor-to-ceiling blinds drawn all day, they will have no privacy whatsoever. Where are the new windows?

Nor did the developer add more windows on the alley side of the building to let in light, as directed. There is still just one small window there. With curtains drawn in front, there will be little to no natural light.

Nor did they plant greenery to cover the resident's view of the bare alleyway wall.

Finally, there are trash and recycling barrels in the little "open space" created out of an alleyway for that unit. This is the only open space this unit gets as it is improperly cut off from the parking lot and open space it is supposed to have equal access to. As such, it cannot double as other residents' trash area, and that has to be moved elsewhere.

Given the recent downpour that occurred on August 29th, I checked the drain (which is installed in the incorrect location on the driveway at 1500 Mass Ave) and found it clogged with debris and a small tree growing in it. This is a big issue as damage nearby at the Maruichi block (also below) appears to have been caused by poor drainage issues.

Notably, the developer has not planted any trees to replace the ones chopped down. Every tree on the property was cut down more than 5 years ago, and I wonder why they have not been replaced yet. I will ask the Tree Committee if they have seen a tree plan for this property.

Thank you for your attention to these ongoing violations,
Joanne Cullinane, TMM 21